



NIOS : The Way Forward

NATIONAL INSTITUTE OF OPEN SCHOOLING

A-24/25, Institutional Area, Sector-62

NOIDA-201309

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CONTENTS

1.	Open Learning: A pathway to the Knowledge Society <i>A Conceptual Frame of Reference</i>	1-12
2.	NIOS STORY: “The Bold Educational Innovation” <i>The Open School takes flight into the Indian education space: The Beginning Decade (1979-89) The Second and Third decades of Growth (1989-2009)</i>	13-27
3.	Curriculum Design and Course Development in NIOS <i>Creating an alternate system of quality education</i>	28-32
4.	Curriculum Transaction Structures and Processes <i>Learning to Learn and Learning Supports</i>	33-36
5.	Assessment and Certification in NIOS <i>Through Conventional and Digital modes</i>	37-44
6.	The Way Forward	45-64
	References	65

Foreword

The NIOS has completed twenty years of its journey and has proved that the Open Distance Learning mode is a viable option in the educational arena. We thought of taking out this document *NIOS: The Way Forward* to mark the twenty first Foundation Day of NOS/NIOS.

NIOS had decided to come out with a Curriculum Framework for Open Schooling in India. In the meeting of the Review group which included Prof. A.K. Sharma, Former, Director, NCERT, Prof. O.S. Dewal, Founder Director, Open School, Father T.V. Kunnunkal, First Chairman of National Open School, and Prof. G.L. Arora, former Head, Department of Teacher Education NCERT, it was decided that as Open Schooling has proved to be a successful alternative system for education at the school level, to reach the unreached - a case study of this pioneer institute would be an appropriate and apt way to celebrate the occasion. Hence the Committee members requested Fr. T.V. Kunnunkal to chronicle the twenty years of the journey of NIOS. With his rich experience and penetrating insight, Father Kunnunkal gave a definite shape to the nebulous idea which had emerged in the meeting.

The first chapter of the document sets the frame of reference by giving an introduction to Open and Distance Learning, its flexibilities and characteristics, the difference in Learner profile in the conventional and the Open Learning System, etc. The second chapter encapsulates the growth and coming of age of NIOS, its salient achievements and innovative projects. The following chapters capture the complexity of different processes that are followed in material development, transaction, assessment and certification. The last chapter focuses on some of the strategic plans for the future. These plans were put forward in the Vision Document of NIOS which were presented to an expert group associated with this system on 23rd September 2009.

I thank all the members of the Review Committee for conceiving this documents to mark this significant occasion. I sincerely thank Father T.V. Kunnunkal who completed this arduous task in a very short span of time to meet the deadline. I also thank Ms. Gopa Biswas, Deputy Director, (Academic) and Dr. Anita Priyadarsini, Director, I/c (Academic) for their unstinting support in bringing out the document on time. I thank the team in the printing department for doing such a good work under severe time pressure.



S.S. Jena
Chairman, NIOS

November, 2009

1

Open Learning: A Pathway to the Knowledge Society

A Conceptual Frame of Reference

This chapter introduces the concept, dimensions and rapid growth of Open Distance Learning as an emerging alternative provider of quality education at all levels. This long and fairly detailed introduction is given since the Open Learning System still new to many or most persons in the country.

- 1.1 Contexts
- 1.2 Open Distance Learning as an alternate system of Education
- 1.3 Open Learning Curriculum: Its Characteristics

1.1 Contexts

1.1.1 International Context

We live in a knowledge-dominated world today. We witness and marvel at the tremendous progress made in science

and technology. Science-backed technology now produces an abundant variety of goods and provides a wide spectrum of services, to meet the ever expanding needs of a great diversity of peoples. This has enhanced radically the standard of life and living. These developments have also reduced significantly the burden of work, by multiplying manifold the human strength and its capabilities and outputs, not only in the physical domain but also in the mental domain. The Information and Communication Technology (ICT) has broken many barriers between peoples and nations and has enabled them to easily share their knowledge, interests and concerns, as and when they choose to do so.

There is also a *shadow side* to this dramatic progress. This progress is shared by only a few, leaving the majority of the nations and their peoples outside its domain. Access to knowledge and to current or updated technologies are jealously guarded. Even when made available, it is done at a high cost. Hence, the fundamental division among the peoples of the world today is due to the *knowledge gap*. In our knowledge-intensive and technology-driven world, where possession of appropriate competences is non-negotiable, the majority of the nations and their peoples have been marginalized. It has resulted in the present international social order that is extremely unjust, since it has created a very unequal world society, with a very large degree of exclusion and consequent marginalization.

Consequently, side by side with such great progress, we also witness today massive poverty and gross inequalities and injustices in many fields of life. Meanwhile, human aspirations for equality and participation, for human dignity and freedom, have also grown in great measure but is accessible only to those few who have had the benefit of a liberalizing quality education *If non-availability of knowledge is dividing the world, availability of knowledge can also unite the world.*

Global vision for Education Provision

Unesco, in its report “*Learning - The Treasure within*”, of 1996, aimed to provide a frame of reference to cope with the challenges and demands of the new millennium. It proposed the following four pillars of education, as essentials for all, whether young or older, to function effectively in the new millennium. These are:

- a) *Learning to Do* or becoming competent
- b) *Learning to Learn* or remaining a life-long learner
- c) *Learning to live with Others* or learning to relate
- d) *Learning to Be* or live by a set of principles; be a person of character.

The Millennium Development Goals set by the UN in 2000 had the following items:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/ AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

1.1.2 The Indian Context

Within our country, we mirror in many ways the above international contexts and conditions. We have in our country a minority of the very affluent, alongwith a growing middle class with high aspirations, and a significant percentage of the remaining 30-40% or more who are poor, many of them very poor. These are the ones who have been marginalized in varying degrees and who suffer from many kinds of deprivations. These are also *educationally marginalised*.

We face a particular problem in our country. There is a culturally rooted belief in our society that there is a division between people who work with the minds

and others who work with their hands. The former are created superior and to rule while the others are to remain subject and be ruled. For good measure, a divine sanction was also attributed to this socially engineered caste hierarchy so that the so-called upper and lower spectrums of society internalized it as the will and design of God. However, in the last three or four decades of modern Indian history, this socially ascribed status, this cultural myth, is being challenged and the sharp borders of this humanly engineered system are beginning to get broken down, though still at a slow pace.

In the knowledge society that is emerging today, knowledge is the gateway to quality of life. Access to and availing of knowledge and acquiring competences for life and living are *non-negotiable constituents for national regeneration* and to build a New India according to the integral vision of our Constitution. Hence, with the rest of the world and following the UN's mandate, India is pursuing the goal of universalization of education. For achieving this difficult goal, it must *develop systems and strategies to reach the hitherto unreached*.

In India, we identified the following national vision and goals:

The Report of the National Commission on Teacher Education (1983) and National Review Committee Report (1991) of the National Policy on Education of 1986 ("Towards an Enlightened and Humane Society") identified the following *National Goals*:

- A United and Secular India
- A Modern Nation
- A Productive People
- A Humane and Caring Society
- An Enlightened and Proactive Citizen

The India that is envisioned is the India of the Constitution.

1.1.3 The Education Context

In the current context, good quality education is an essential resource for life and living. *The presence or absence of this resource is the basic divider of our Indian society today.* India had the distinction of its ancient insight that it is knowledge that liberates us. (*gyana marga mukti marga*) but knowledge had remained the prerogative of a few in our Indian society. The unavailability of this essential resource, namely a good quality education, continues to deprive the poor of availing of the many benefits of life and living even today. As a consequence, a significant third of the population is sidelined and marginalized, while there is such an over-abundance of both knowledge and technology with the few rich and the powerful.

In spite of significant progress since Independence, the educational situation in India remains rather dismal even today. In 2001, India had about one third of the world's illiterates-almost 46% and 35% of its own female and overall population in the 7+ age group respectively, that is 296.2 million persons. About half of the children between age of six and fourteen (82.2 million) are not in school. They stay at home to care for the cattle, tend to the younger children, collect firewood or work in the fields, tea stalls or restaurants. These children are thus denied their childhood. Even among those who started school, around 39% and 66% still dropped out before the end of class IV and X respectively in 2001-02. Only about 1% of the rural girls who go to school reach class XII. Most of these dropouts and out-of-school children are from the marginalized sections of society, namely Dalits, Tribals, Muslims, various categories of the OBCs, and girl children. Various factors such as poverty, caste and gender discrimination, irrelevant education and lack of educational facilities are responsible for this very unjust scenario.

It is here that Open Distance Learning can make a significant contribution to evolve the New India we envision, since education is a 'unique investment for the present and for the future'. The present document is an exciting and luminous chapter in the educational history of modern India. It outlines the initiative of Open Distance Learning through Open Schooling. But before we go into that chapter, in this introductory chapter, we shall outline some of the significant features of the Open Learning System, which is delivered in the Distance Education mode and hence the system is referred to as the Open Distance Learning System. (ODLS)

"In the Indian way of thinking, a human being is a positive asset and a precious national resource, which needs to be cherished, nurtured and developed with tenderness and care, coupled with dynamism. " NPE 1986

1.2 Open Distance Learning as an alternate system of Education

The major challenges, while searching to find solutions to the educational problems, are:

- The challenge of numbers
- The challenge of credibility; and
- The challenge of quality.

As the possession of basic knowledge and skills for life becoming an imperative in our present society, the emergence of Open and Distance Learning System (ODLS) has been a natural, most relevant and appropriate revolution in the history of educational development in the third quarter of the twentieth century to meet this challenge. While the conventional system continues to be the mainstream for educational provision, a significant percentage of its users find it too rigid and restrictive to suit their life's needs and conditions. That

explains the rapidly growing shift and deliberate choice of distance learning as an alternate provider of education.

1.3 Open Learning Curriculum: Its characteristics

1.3.1 Introduction

In order to become a credible alternative, ODL has to specifically address the above challenges. The revolution brought about by the growth of Information and Communication Technology (ICT) and its ready access has greatly facilitated the rapid expansion of Open and Distance Learning System as it makes possible an educational alternative that is flexible, constructivist, learner-friendly and providing multi-mode media support to the teaching and learning process. In a knowledge-explosive world that is developing worldwide and in India, Open Learning offers an alternative learning system that is able to respond appropriately to the many challenges and demands from life in the new millennium. In order to do this, the ODLS whether at the school or University level, has to bring about several *paradigm shifts*. ODLS, while addressing and seeking solutions to these urgent national contexts, can provide some credible solutions.

Curriculum includes all learning experiences of students. Some of these will be through design and prescription while others will be part of what is called the *hidden curriculum*. Both the formal and non-formal or informal curricular experiences make vital contributions to the final quality of the educational process and in great measure, define its final outcome. The institutional climate and its values, patterns of relationship, traditions and practices also play a key role to determine the quality of education received. How to expand and enrich the learning experiences of the students of the ODL system is the challenge. In the formal system and through its institutions, such climate building is relatively easier. It is also becoming more and more transparent that much of the *pain* that many in society experience is not so much due to their not possessing the hard skills or technical and subject mastery skills but as much or more due to the absence of *life skills and soft skills* in terms of competences, relationships and behaviour patterns in concrete life situations, whether at home, in work situation or in life in general.

1.3.2 Norms for evolving the ODL curriculum

The NCERT brought out the National Curriculum Framework 2005 as a national system of education and hence as *normative* and *directive* for the pursuance of education in the country. It has made significant departures from several traditional practices and perspectives to make education linked to life and to current realities and in order to make education truly a developmental process, rather than get stuck with rote methods and be text-book centric.

In the formal system, the curriculum that is to be pursued by students is *prescribed* and there is very little room for freedom of choice. In a country of

such diversity, it is neither feasible nor educationally desirable to have a uniform curriculum for the whole country. On the other hand, it is also necessary to have a *degree of commonality across the country* to promote national integration and a feeling of fraternity. It will mean that a certain *core remains common for all the systems*, whether formal or Open, while the remaining part of the curriculum would offer scope for responding to the cultural, geographic and other differences obtaining in various parts of the country and to respond to the needs of the specific learner clientele. In order to do so, it has to meet certain norms and basic principles that guide its curriculum, namely *flexibility, relevance, credibility* and *balance*. The *epochal* changes that are taking place in society call for a major shift in curriculum reform, since education serves as a foundational resource for transformation of persons and through them of society, empowering both to deal with the new realities and conditions.

1.3.3 Flexibility

This flexibility is all the more necessary in the Open Education system, so that the learner can make choices to suit one's needs and conditions. This will refer to the choice of subjects for study and so, not forced to take a set of subjects as prescribed in the formal system. Since equivalence and quality are non-negotiable, the Open System must ensure these while allowing the learners to exercise their choices. For a young adult learner, this freedom may also include choice of one or more vocational or technical courses, along with academic courses.

The increased use of ICT is expected to further widen the spectrum of flexibilities in the ODL system. The institution-based Personal Contact Programme (PCP) may get replaced, in some measure, in due course of time by virtual classrooms or online learning. In place of written assignments, the learners may get an opportunity to submit their assignments on line.

1.3.4 Relevance

Whatever the system one follows, the curriculum must be relevant to the needs of the individual learners and meet societal needs. A subject or a modular course or a unit within an academic or vocational subject must pass the test of relevance, which may be based on the usefulness and potential of a course to meet the objectives of education per se or to meet the personal goals of an individual learner. These personal goals may include the desire to improve one's present level of occupational competencies, the desire to have certain essential life skills, the desire to enhance one's level of general awareness about the world and about the cultural heritage of India, and development of appreciation for various art forms etc.. Every course that is provided in the system must pass the test of relevance. Flexibility coupled with relevance must constitute the two essential characteristics of the curriculum.

1.3.5 Credibility

As a new comer, there is a widespread perception that the Open Learning, which allows so much scope for choices, is an inferior or relatively easy system and hence is second to the formal system. *An essential yardstick for ODL system is that maintenance of equivalent standards and quality remain non-negotiable.* The formal system would not easily accept a new comer in the field that does not conform to its own norms and rules and would readily classify it as an inferior system (even if its own standards remain low and its norms are largely unobserved). It will take some time before the products of the new system have a chance to enter into the various domains of life and prove their competence. ODLS must strictly ensure equivalence with what obtains in the formal, without sacrificing its distinct and different features. Equivalence and accreditation from both the Accrediting Agencies and from the Universities and Boards of Education is a must to demonstrate to the public the official recognition and acceptance of the new System.

1.3.6 Balance

Like the curriculum of the formal system, the curriculum of Open Learning should reflect a holistic balance between different types of courses, including both scholastic and co-scholastic areas, theoretical and vocation-oriented courses and certification courses and life enrichment courses. Besides, in each course the content should reflect a balance between the theoretical and applied aspects of the course concerned. The applications of the theoretical knowledge in day-to-day life of the learners should be specially emphasized. This will also go a long way in enhancing the relevance and usefulness of theoretical courses. The principle of 'balance' should also be reflected in the use of strategies involved in the delivery of the programme. Too much reliance on the use of print material at the cost of PCP or multimedia support may reduce the effectiveness of the programme, which in turn is sure to affect the credibility of the system. Likewise evaluation system must reflect a balance between written and practical examinations including projects and assignments. Assessment strategies must also be comprehensive and reflect a proper balance between different objectives sought to be tested.

1.3.7 Certification and Equivalence

In our system, certification by a public examining body at the end of a well-defined stage of education enjoys immense respect and credibility. The certificate is universally accepted as a proof of the holder's eligibility for admission to higher education programmes or for employment for which the certificate is prescribed as the essential eligibility qualification. ODLS must therefore also respond to this demand for both certification and equivalence.

1.3.8 Learners' Profile

There are major differences in the learners' profiles in the formal and Open Learning systems. The learners in the formal system in any class at a particular

stage of education are roughly of the same age group and belong to the same geographical and in good measure also belong to comparable socio-cultural contexts. Therefore, from the viewpoint of physical, social, emotional and mental development, they more or less constitute a homogeneous group. This makes it easy for the school or college to organize common and culture-specific experiences for the students. But the situation in the case of open learning is much more challenging as the learners come from diverse backgrounds and there is a sharp difference in the age range. In the open learning system, most of the learners are young adults, likely to be in their 20's or 30's or even older. In fact, since there is no upper age barrier, even a senior citizen can enroll. In the formal system, the students generally do not have any experience of the world of work but in the open learning system, a large number of students may be working persons or have had work experience and choose the Open Learning channel to continue their education or to update their skill. As a result, we are dealing with mature adults and with greater capacity for independent learning. It is unfair to compare the two.

Because of the major differences in the learner profile, the ODLS introduces many changes to accommodate to the needs of its learners. Accordingly, the Open Learning system students have the freedom and flexibility to pursue courses of their choice at their own pace and as per their convenience and may take a much longer time to complete a particular course. The ODL students have more autonomy and freedom to study at a place and time of their choice. Still another difference in the two systems is in the mode of curriculum delivery. In the formal system, there is a set pattern of curriculum transaction, that is sequential teaching of different syllabus units by the teachers and following the prescribed textbooks. However, the learners of the ODL system can learn on their own with the help of specially prepared Self-Instructional Material (SIM) at a time and place of their choice and convenience. Through the Personal Contact Programme, they do get an opportunity to seek guidance periodically from the tutors at the study centers.

The several differences between the two systems mentioned above, highlight the need for a curriculum for the ODL system, which is different from the curriculum of the formal system in several ways.

Some of the distinguishing characteristics of the open learning curriculum are mentioned below.

1.3.9 Paradigm Shifts in the ODLS

- Shift of learning from only the classroom to anywhere
- From teacher-centric to learner-centric
- From teacher as instructor to teacher as a facilitator of learning
- From mainly oral instruction to also technology-aided instruction

- From fixed time to any time during life as learning time
- From “you learn what we offer” to “*we offer that you want to learn*”
- From education as a one-time activity to education as lifelong activity

1.3.10 The ODL System aims to:

- Provide an opportunity for education to all aspirants including those in service, women, adults, handicapped, those in remote and inaccessible areas etc.
- Provide self-paced learning
- Cater to innovative and flexible education to suit learner needs
- Provide user-friendly learning materials which are largely self-instructional
- Provide a number of diverse courses: professional, technical, vocational and general or life enrichment
- Cater to the needs of those who wish to have an education leading to certification as well as to those who seek skill upgradation, or gain competence in one subject or area etc.
- Provide learning support and counseling through face to face personal contact programmes in Study Centres as well as through the media interface.
- Incorporate new learning technology, use satellite communication, networking, internet, e-mail and phone etc. to maintain access to learners, where these are available.

1.3.11 More Features of the ODLS

Designed as a learner friendly system, it has necessarily introduced the following distinct and *different set of rules and norms* to facilitate the attaining of its objectives of serving the needs of the learners.

- No upper age limit
- No rigid entry qualifications even while maintaining learning standards
- Learner has a wide spectrum of courses to choose from
- Learning can be done at learner’s own pace
- Scheme of examination is flexible to suit the learner needs
- Credit accumulation is possible, even when there is a short break from studies
- Offers a quality learning system with technology support

- While focus is on self learning, tutor support, is also provided
- Meets the educational needs of differently-abled children
- Provides a 'safety net' to school drop outs and offers them a second chance education to equip them to re-enter and meet its demands

The ODL system, using its in-built flexibility, can also offer a variety of life enrichment and continuing education courses on essential life skills linked to relationships and communications such as conflict resolution, stress management, time management; and general awareness courses like rights and duties of citizens, human rights, arts and crafts etc.. Such courses may be undertaken by the learners as 'additional' subjects or as independent certificate level courses. There is immense scope and urgency for ODL system to develop a very large number of such life enrichment courses to meet the increased demand for additional or new learning or learning for leisure time activity or for engaging in hobbies and for new type of jobs etc. This is an area that tends to remain neglected but calls for much creative attention.

1.3.12 ODLS in the national educational context

In the present era that has moved on from the industrial to the information and communication age, we witness the emergence of a knowledge society in which every member will be required, in some measure, to use *knowledge as a resource for life and living*. The ODL system provides immense possibilities for the learners to pursue the goal of becoming *knowledge competent*, by pursuing a variety of courses of their choice in order to meet life's needs.

Because of the characteristics of the new provision described above, ODL system has been gaining wide popularity over the recent years in India, as it does across the globe, since it *provides an effective alternative channel to pursue education to all those who cannot or do not want to follow the traditional system with its rigidities and constraints*.

Open distance education, while it offers an open channel with its essential characteristics of flexibility and relevance, must preserve, at the same time, quality and equivalence. To prevent alienation of students from reality conditions, Open Learning must maintain its own clear guiding principles, adhering to its own distinct set of norms and differences in pursuance of its goals and objectives. Then, *Open Learning will open the hitherto largely closed doors of knowledge and paths for development to all, without making any distinction or exclusion*.

Promotion of ODLS would thus contribute to national development and will address the major concerns in the country such as universalization of primary and elementary education, and consequently democratization of the peoples of the country, thus empowering people to participate in decisions that affect their life. The long-term goal is to fulfill the dream of India to eliminate or greatly reduce the *educational divide* by bringing education to every citizen,

namely *universalization of quality education for all*. What the formal system cannot do alone, the ODLS, joining in partnership, will help to achieve. Since the system operates in the distance education mode, it can enroll a very large number of students from very distant areas. As a result, it will remove many of the current tensions caused through gross inequalities, which, in turn, often provide the fundamental cause for violence and acts of terror. Instead, such democratization of education would provide a basic equality among the people and would enable the formation of ‘*communities of solidarity*’ as they learn to live together in harmony and peace.

For Open Learning to emerge as a *credible alternative*, it must in no way be inferior to what obtains in the formal system. *Quality assurance in the ODLS is not negotiable*. This quality is to be maintained without sacrificing the many characteristics of the paradigm shift that creates this alternate system and which have been described above.

To attain the goal of *making learning a pathway to development*, learning has to shift from its present stand and become learner-centered, activity-intensive and interactive. The emphasis then shifts to make *learning essentially a process*. How to learn then becomes as important as what to learn. It encourages the spirit of enquiry, supports both independent and cooperative learning, and provides opportunities for the creation for evolving a *community of lifelong learners*. The ancient dream of India, seeing itself as a knowledge society, will then find fulfillment.

1.3.13 From Potential to Actualization

It becomes increasingly clear that in countries such as ours, where a large number of persons remain outside the education network, the formal system, working alone, does not have the flexibility, infrastructure or motivation to universalize education. These inadequacies, rigidities and limitations of the formal system were most aptly described by the then Minister of Education, Mr. K.C. Pant, in 1985 in the Statement of Objects and Reasons for the establishment of the Indira Gandhi National Open University (IGNOU). While introducing the Bill in the Rajya Sabha, he said, “ *Despite the tremendous expansion of the formal system of higher education since Independence, the pressure on the system is continuously increasing. Indeed, the system has not been able to provide an effective means to equalize educational opportunities. The rigidities of the system requiring, among the others, attendance in classrooms have been a disincentive to many learners. Moreover, the combinations of subjects are inflexible and are often not relevant to the needs of the learners. This has resulted in a pronounced mismatch between the contents of most programmes and the needs of the development sectors.*” This thinking pervaded the educational sector on the whole. It was this mindset that brought open distance education onto the national scene, strengthened its roots and nurtured its growth. The above views, expressed in 1985, provided the policy direction for launching the Open Distance Learning system.

So, the National Policy of Education document of 1986 says: “*the future thrust will be in the direction of Open distance education*”. It is more than mere rhetoric. It represents the vision of a rapidly emerging future educational scenario. With globalization, free market access and cutthroat competition, *the educationally competent are becoming the haves of today, leaving aside those without it mainly as observers*. Open learning system is the Sesame that can provide the magic key to open doors to the millions who cannot have access to the treasure house of knowledge through the formal system. Only Open learning system can help them to learn new knowledge and skills, minimize the knowledge gap and enable them to compete in the market space called life. It helps to bring education to the doorstep of the learner. ODLS courses and programmes thus will serve individual's needs and the national interests by helping to universalize elementary education and later to universalize secondary education, to impart vocational education (both initial and updating courses) so that working people and people who would like to join the world of work can gain new skills, upgrade their skills, learn new trades and become entrepreneurs and self-employable. Finally, the system also offers courses that help to enrich life and make it more purposeful, meaningful and joyful,

Shri APJ Adbul Kalam has observed that India is poor in spite of its enormous wealth because it does not focus on *value addition*. ODL system has the significant potential to add value through its academic, vocational and life enrichment courses, stressing not merely subject mastery but also adding life skills and soft skills to the curriculum. Thus, even while it complements and supplements the formal system, it also becomes more and more the preferred choice of a growing number of learners.

Finally, since learning is the doorway to life and to discover fuller ways of living, and in the light of rapidly expanding technologies, ODLS must engage in *educational research* to identify and make available to its client group more and more effective ways of learning to pass well in the examinations of the system and also to get equipped to pass the much tougher examinations of life. Such research will reveal many new possibilities for a happy marriage between pedagogies and technologies. Without sustained research, this bold new initiative will fall into obsolescence.

“The last decade has seen a phenomenal growth in distance education and the integration of this method of education into the standard educational provision in a large number of countries to such an extent that it is now no longer possible to think solely in the traditional sense of face-to-face contact”
D. Sewart, OU, UK, 1983

2

NIOS Story: “The Bold Educational Innovation”

“There is a tide in the affairs of men, which, taken at the flood, leads on to fortune.

*Omitted, all the voyage of their life is bound in shallows and in miseries.
And we must take the current when it serves, or lose our ventures.”*

William Shakespeare

2.1 Open School takes flight into the Indian Education Space

The Beginning Decade (1979-1989)

- 2.1 Open School takes flight into the Indian Education Space
- 2.2 Government’s Initiative
- 2.3 Mission of NOS
- 2.4 Characteristics of National Open School
- 2.5 Two Decades of Growth of Open Schooling (1989-2009)
- 2.6 Use of ICT in NIOS
- 2.7 Summing Up

What has been mentioned in the pages of the preceding chapter, as a concept frame of ODLS, may have sounded more like fiction than fact, as mere theory than what can be practiced. Many would ask: Is such a major revolution possible, especially in the field of education? In the following pages, we tell the adventurous story of the foundation and rapid growth and evolution of the Open Learning System at the school level in the country.

In 1978, NCERT and CBSE organized an international Seminar on Open School which was attended by experts on Distance Education of international repute. After that Seminar, the Central Board of Education (CBSE) decided to set up an Open School in July, 1979. Accepting the international thinking on Open Education, CBSE decided, from the start, to make its Open School an independent project and department of the Board, and funded it. After a short period of initial preparation, Open School registered the first batch of 1672 students in the academic year 1981-82. *The Indian Express*, while appreciating the new scheme of education, as a bold innovation, gave its editorial the title: “*Open School: an empty school*”. In 1983-84, CBSE conducted a separate examination, based on the separate curriculum that the Open School had developed. Encouraged by the results, CBSE approached organizations like

Shramik Vidyapeeth, Cottage Emporium, Mauriya Hotel, CRPF etc. to enroll their adult employees for continuing education through the open channel. Open School brought education to their door steps. As the demand for registration grew from different parts of the country, study centres were set up in Delhi, Madras, Jaipur, Port Blair and Sikkim. By 1989, the Open School, earlier termed “empty” had an enrollment of 49055. To promote and support the education of girls and women, and in consonance with the policy of the Government, women candidates were given exemption from tuition fees, as was the case of those of the SC/ST category, of Ex-servicemen and the handicapped.

Responding to the enthusiastic and growing response for continuing education, through the Open channel, CBSE’s Open School decided to start the Senior Secondary course in 1986. On a war footing, the scheme of studies and about 300 booklets or modules were prepared and published. In November, 1988, the scheme of Senior Secondary was launched and candidates were registered and the first examination was conducted in 1989.

2.2 Government’s Initiative

In 1987, the Department of Education of the MHRD set up a Committee to design and prepare a turn-key report for the establishment of the Open School. An empowered Committee examined the report and approved it and then the Government established the National Open School society as a registered society, as an autonomous institution under the Ministry and it was called National Open School.(NOS) In 1990, NOS was vested with the authority to conduct its own examinations and to certify candidates appearing for the Secondary and Senior Secondary Examinations, the same authority that was earlier given to CBSE.

2.3 Mission of NOS

To provide relevant, continuing and developmental education to prioritized groups, in consonance with the normative national policy documents and in response to the assessed needs of the people through an Open learning System, at the school stage, as an alternative to the formal system and thus make its share of contribution to:

- Universalization of education
- Greater equity and justice in society; and
- The evolution of a Learning Society

NOS set for itself the challenging task of providing education to the following *prioritized groups*

- Girls and women, as a category
- Schedules Castes and Scheduled Tribes

- Rural People and Urban Poor
- Unemployed and part employed, seeking jobs or better jobs
- The older than the younger, from 35 years down, in the age bracket of 15-35

The challenging Mission generated a good deal of passion among the staff, as it strove *to reach the unreached and the unserved in far away places*. The motto set was: “*Yeh Rista na tootte*”

2.4 Characteristics of National Open School

The detailed description of the characteristics and flexibilities of the ODLS was carefully followed by the NOS. To briefly identify these:

- *Open entry* –admission to the foundation course and to the secondary were based on a self-certificate. To continue, the candidate was to take a first test, after three months of study and pass it. The test was evaluated by the Optical Mark Reader of the computer and hence collated results for each study centre were dispatched in a couple of weeks.
- *Age*: While there was no upper age restriction, the minimum age was kept at 14
- *Choice of Subjects*: Candidates could choose the subjects they wanted, but had to take one language.
- *Self-Paced Learning*: Candidates could take up to five years to complete the course, taking, if they chose to, one or more subjects at a time, especially if they were employed.
- *Scheme of Examination*: For the benefit of the candidates, two full scale examinations were held twice in a year. Pass credits were stored (in the computer) and not lost, even when one decided to discontinue for a year or less and could resume and complete the course and pass in the remaining subjects and get certificate.
- *Multi-Media package*: Besides the printed material, which was specially prepared to be a “teacher in print” and highly interactive, audio and video support is also provided in a limited measure.
- *Learning Support Centres*: At the Accredited Study Centres, the candidates could get tutorial assistance. In order to promote self-learning, the academic staff had put all the subjects of the entire Senior Secondary course into Concept Maps or Mind Maps or Concept Webs.

2.5 Two Decades of Growth of Open Schooling (1989-2009)

The past two decades have witnessed steady growth and several innovations by the NIOS. In summary form, these are listed below:

- **Authority to examine and certify** In September, 1990, the Ministry of Human Resource Development, government of India passed a resolution to vest authority on the NIOS to examine and certify its students.

MINISTRY OF HUMAN RESOURCE DEVELOPMENT
(Department of Education)
New Delhi, the 14th September 1990

RESOLUTION

Subject: Vesting of authority in the National Open School Society for holding certain examinations through distance and open learning system at the school stage and for certification thereof.

No. F5.24/90 Sch.3 -The Government of India had setup the National Open School Society. an autonomous and registered body on 23rd November. 1989 to cater to the educational needs of school dropouts, working adults, housewives and socially disadvantaged sections, through distance education at the school stage. The Society runs the management of the National Open School which, through distance and open learning system, has been offering courses, preparing students for the Secondary and Senior Secondary School Examinations and also offers Bridge (Preparatory) Courses

It has now been decided that in pursuance of Section 3 (ii) of the Memorandum of Association of the National Open School Society, the Society shall conduct the above examinations at the school stage of education upto predegree level, whether academic, technical or vocational, which are developed either by the National Open School itself or in collaboration with other agencies, subject to the approval of the Society's Executive Board or as it may be called upon to conduct by the Government of India, Ministry of Human Resource Development, Department of Education. The Society shall also be the certifying authority for such courses and programmes and do such acts ancillary to these objects as may be necessary. The Central Board of Secondary Education which was the certifying and examining authority on behalf of the National Open School Society, will cease to be so with effect from the date of issue of this Notification in the Gazette of India.

ORDER

Ordered that a copy of the Resolution be sent to all State Governments, Union Territory Administrations, all Ministries Departments of the Government of India, University Grants Commission. Prime Minister's Office, National Council of Educational Research and Training. Council of Boards of Secondary Education, Association of Indian Universities, Central Board of Secondary Education, Council for the Indian School Certificate Examinations and the State Boards of Education.

Ordered also that the Resolution be published in the Gazette of India for general information.

D.M.DE. REBELLO

Jt. Secy.

Published in part I Sec. OF No. 42 of the Gazette of India on Saturday the 20th October, 1990

- In July 2002 the NOS was *re-christened* as *National Institute of Open Schooling* (NIOS).
- *Secondary Stage Courses offered* Currently NIOS offers to the students the following courses to choose from at the Secondary stage.

Hindi	Persian
English	Tamil
Urdu	Mathematics
Sanskrit	Science and Technology*
Bengali	Social Science
Marathi	Economics
Telugu	Business Studies
Gujarati	Home Science*
Kannada	Word Processing* (English)
Punjabi	Psychology
Assamese	Indian Culture & Heritage
Nepali	Painting*
Malayalam	Arabic
Oriya	

- *Senior Secondary Stage courses offered* The following courses are offered at the Senior Secondary Stage to choose from.

Hindi	Political Science
English	Economics
Urdu	Business Studies
Sanskrit	Accountancy
Mathematics	Home Science*
Physics*	Word Processing* (English)
Chemistry*	Psychology
Biology*	Computer Science*
History	Sociology
Geography*	Painting*
Mass Communication*	

- *Vocational Education Courses offered* Catering to the young adult or to an older person, who wants to find suitable employment and hence wants to acquire job skills, both NOS and later the NIOS paid attention to develop several vocational education courses as a major course provision. Vocational education has not had too many takers in the education system in the country, for a variety of cultural factors. NIOS is making a special effort to make this popular. The large provision of such courses is evidence of the commitment of NIOS to cater to the *Roti Kapda Makkan* needs of the average citizen of our country. These courses vary in duration; NIOS offers two year course, one year certificate courses, one year package courses, one year stand alone certificate courses, six month courses and

Life enrichment courses. NIOS hopes that its vocational courses will attract more and more interest and enrolment so that vocational education, which has remained a non-success story, can be turned into a success story.

Two Year Course

- Diploma in Radiography (DRX) (X-Ray Technician): 2 Years

One Year Certificate Courses

- Certificate in Rural Health for Women (Gram Sakhi)
- Advanced Certificate in Rural Health for Women (Gram Sahyogini)
- Certificate in Care of Elderly (CCE)
- Diploma in Model Secretarial Practice
- Certificate in Toy Making and Joyful Learning
- Secretarial Practice (PA/PS)
- Certificate in Library Science (CLS)
- Certificate in Early Childhood Care and Education (ECCE)
- Diploma in Basic Rural Technology (DBRT)
- Certificate in Community Health
- Advanced Certificate course in Management of Children with Learning Difficulties

One Year Package Courses

- Electrical Technician
- Radio and T.V. Technician
- Cutting and Tailoring & Dress Making
- Library Clerk
- Refrigeration & Air Conditioning
- Certificate in Homeopathy Dispensing
- Certificate in Four Wheeler Mechanism
- Certificate in Two Wheeler Mechanism
- Certificate in Footwear Design & Production
- Certificate in Computer Applications (CCA)

One Year Stand alone Certificate Courses at Seceonday

- Typewriting(H)
- Typewriting(E)

- Word Processing
- Typewriting(Urdu)
- Jute Production
- Carpentry
- Solar Energy Technician
- Bio Gas Energy Technician
- Laundry Services
- Bakery & Confectionary
- Welding Technology

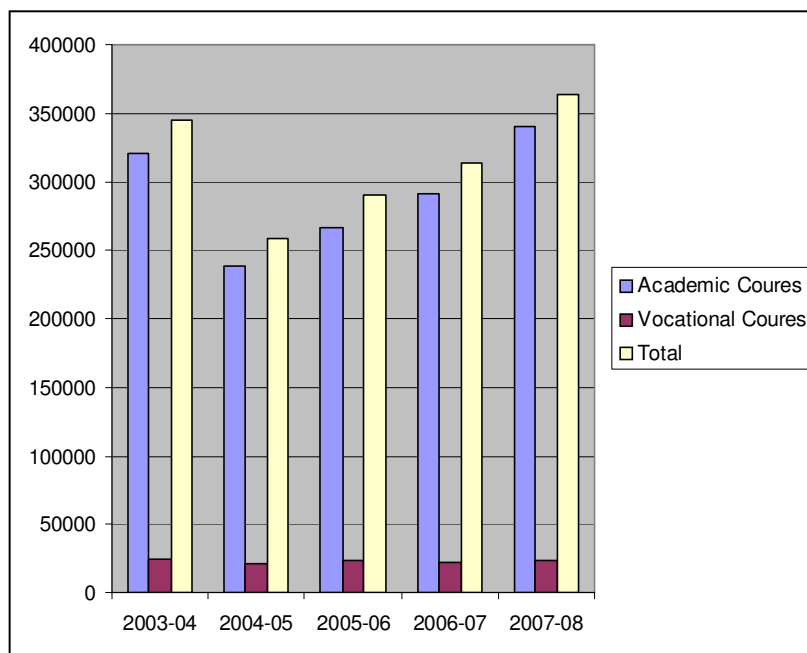
One Year Stand alone Certificate Courses at Sr. Seceonday

- Typewriting(E)
- Typewriting(E)
- Stenography(Hindi)
- Stenography(English)
- Secretarial Practice
- Word Processing
- Stenography(Urdu)
- Plant Protection
- Water Management For Crop
- Oyster Mushroom Production
- Furniture & Cabinet Making
- Electroplating
- House Keeping
- Catering Management
- Food Processing
- Play Centre Management
- Hotel Front Office Management
- Poultry Farming
- Soil & Fertilizer Management
- Preservation of Food & Vegetables
- Typing(Urdu)

Six Month Courses

- House Wiring and Electrical Appliances
- Motor and Transformer Rewinding
- Radio and Tape Recorder Repairing
- T.V. Repairing
- Cutting and Tailoring
- Dress Making
- Library Attendant
- Certificate in Basic Computing
- Hindustani Music
- Plumbing
- Beauty Culture
- Desk Top Publishing
- Yog
- Security Services
- Computer Hardware Assembly & Maintenance
- Certificate in Jeevan Vigyan
- Certificate in Mushroom Production
- Certificate in Bee Keeping
- Certificate in Vermi Composting
- Certificate in Web Designing
- Certificate in Four Wheeler Chassis Mechanism
- Certificate in Four Wheeler Engine Mechanism
- Certificate in Fire Prevention and Industrial Safty
- Certificate in Goat Rearing
- Certificate in Indian Embroidery
- Certificate Course in ICT for Early Childhood Care and Education

- Advanced Web Designing
- Computer and Office Applications
- *Life enrichment courses* NIOS offers currently 4 life enrichment courses, namely *Paripurna Mahila*, Yoga, Hindustani Music and *Jeevan Vigyan*. These courses have no formal examination.
- *Functioning of NIOS* Apart from its Headquarters at A 24-25, Institutional Area, NH 24, Sector 62, Noida, UP, NIOS operates through a network of 11 Regional Centres, 3 Regional Sub centres, five departments at the Headquarters and 3286 Accredited Institutes, which include also 1085 Accredited Vocational Institutes, spread over every State of India and in Nepal and the Middle East.
- *Special Provision for the disadvantaged* NIOS has some *Special Accredited Institutions for Education of the Disadvantaged (SAIED)* to cater to the needs of physically and mentally challenged persons, socially and geographically isolated and disadvantaged sections of society such as street children, working children, rural women and SC/ST.
- *Enrollment* has been steadily increasing and has currently reached an astounding figure of 1.6 million students, drawn from every State of India and some from outside. The five year growth chart illustrates that Open Learning sells well in the market place. It is reliably stated that NIOS today rates as the largest single educational institution worldwide.



- *Digitalized Operations* Because of both the numbers and the geographical expanse, NIOS has been a pioneer, in real measure, in the use of computer-based outputs to deal efficiently with its many operations. These include data entry of all students, examination data for in-house storage and use; online registration, duplicate marks sheets or migration certificates, etc. The details of use of ICT in various operation of NIOS are given in section 2.6.
- *Open Basic Education* is another initiative. Addressing the reality conditions of education or its deprivation in many parts of the country, NIOS has initiated the OBE, to provide education at the primary and elementary stages. The education target group of this education is both out of school children as well as adults who have become literate through the programmes of the National Literacy Mission (NLM). NIOS has developed a curriculum and also provided guidelines that encourage institutions to identify available learning resources or make their own to provide relevant and quality education to bring these students upto Level A (Class 3) or Level B (Class 5) or level C (class 8). They then have the option of either joining the Open learning system or joining the formal system. It is yet another feature of the *redeeming education* that NIOS, true to its Mission, offers, since the majority of students drop out or are pushed out from the formal schooling system.
- *Hunar Project*: Following the recommendations of the Sachar Committee to improve educational access to the Muslim Community, NIOS entered into a unique collaboration with the Bihar Education Project Council (BEPC) of the government of Bihar to provide training and upgradation of skills for Muslim girls, most of whom were already enrolled in Classes 6-8 in various schools. The project was named “Hunar”. The BEPC envisaged imparting of skill training /upgradation to approximately 12,000 girls during the 200809 academic session. Under the Hunar project, skill training in seven courses namely Gram Sakhi, Jute Production, Cutting and Tailoring, Early Childhood Care and Education, Basic Rural Technology, Bakery and Confectionery and Beauty Culture were offered. The scheme was implemented through collaboration with the Maktabas, Madarsas and Darul-Uloom.
- *Ni-On Project* The NIOS Online (Ni-On) was launched in 2007, offering the facility to students to register on line for the Secondary courses through the NIOS website, instead of the earlier practice of restricting registration through the Accredited Institutes only. Though there was some initial hesitation to use technology for registration and admission to NIOS and only some 30,000 took advantage of this facility, in 2007, the number of such admissions swelled to 1.60 lakhs in 2008-9 and is expected to reach 2.5 in the 2009-10 session.
- *Learning Support Centre (LSC)* Along with the Ni On project, LSC also became operational. Though operating as a distance education provider,

the ideal is to reduce the distance between the learner and the provider as much as possible and provide ready answers and information sought, even NIOS is spread over the whole country and several centres outside the country as well. Hence, learners seeking information or help regarding admission, examination and other related services could use the toll free phone 18001809393. NIOS designed in house an Interactive Voice Response System (IVRS) to provide taped answers to student queries and if not satisfied, the student could then contact the executives at the regional centre.

- *State Open Schools* Following the model of NIOS, several States also have also set up State-level Open Schools. At present, number of State Open Schools is fourteen. Open Schools in the country need to expand in a big way to reach the unreached and to take education to the doorsteps of all learners. Both at the centre and the state level they need to network among themselves and build strong international relations.
- *International Links* NIOS has built strong relationship with several international agencies, which have been very supportive, over the years. Special mention may be made of Commonwealth of Learning (COL) based at Vancouver, Canada, UNESCO, UNDP, World Bank and SAARC. These relations help capacity building, sharing of resources and sharing of knowledge. With the Support of COL NIOS has set up Open Schooling Association of the Commonwealth and also brings out a journal.
- *The size of the materials production in NIOS*

NIOS uses approximately 3500 to 4500 metric tonnes of different varieties of paper every year for its inhouse publications.

During the year 2008-09, NIOS printed approximately 55 lakh copies (combined despatches) of Secondary, Senior Secondary and Vocational Education courses. Other publications of the year 2008-09 include the following:

- Books in regional mediums in Gujarati, Malayalam, Telugu, Marathi and Oriya at secondary level.
- Examinations related materials
- Admission related material
- Other publications like Annual Report, Annual Accounts and 'Open learning Magazine' and OSAC Journal
- Books in Bengali medium under OBE programme
- Miscellaneous items for Departments (Administration, Evaluation, Student Support Services, Vocational, Academic) and Regional Centres
- Reports of various seminars/conferences

2.6 Use of ICT in NIOS

Online Admission under Ni-On project

During the year 2007-08, NIOS took a significant step of providing the facility of **On-Line Registration for Admission and Examinations** under NIOS Online **Ni-On Project**. The Ni-On Project aimed at increasing educational access through the use of technology.

General Objectives of Ni-On Project

- (i) To promote e governance and better governance as directed by Government of India from time to time.
- (ii) To ensure transparency and improving the efficiency in operations of NIOS in its key areas of functioning like admission, accreditation and examination and other activities.
- (iii) To assist in government's goal of Universalisation of Secondary Education (USE) by improving and enhancing the reach of NIOS to its potential learners.
- (iv) To bridge the digital divide in between the learners of NIOS and the learners of the formal schooling system by providing them opportunity to use ICT for accessing NIOS for the purpose of admission and availing benefits associated with it.
- (v) To facilitate the structural and functional transformation of NIOS as ODL institution by imparting it greater flexibility, openness, superior quality and reliable services, as service provider – to its marginalized target group of learners.

There are four streams of On-line admission to meet the needs of learners. Admissions through these streams are mutually exclusive i.e., a learner can opt for only one of them.

An interactive On Line Form for Admission has been generated. A student can fill up the form on line. Guidelines about “ How to fill up the form” have been provided.

Four Streams of On Line Admissions

- (I) **On-line Admission for all learners (Stream 1):** This stream for On-line Admission was open for all learners as per eligibility criteria laid down for Secondary and Senior Secondary examinations. These learners were eligible to appear in public examination first time in the forthcoming April-May examination.
- (II) **On-line Admissions for learners wanting to appear in the forthcoming October- November, Examinations (Stream 2):** This

stream for On-line admission was open for all those learners who had appeared but could not clear the Public Examination.

(III) On-line Admission for learners wanting to appear under the On Demand Examination System (ODES) of NIOS for Secondary Level (Stream 3): This stream for On-line admission is open throughout the year. **(Only Online Mode is available)**

(IV) On-line Admission for learners wanting to appear under the On Demand Examination System (ODES) of NIOS at Sr. Secondary Level (Stream 4): This stream for On-line admission is also open throughout the year. **(Only Online Mode is available)**

The process of On Line Registration for Admission for Stream 3 and stream 4 is operational 24x7x throughout the year.

On Line Payment Gateway

During the year 2007-08, NIOS introduced Online Payment Gateway. With online payment gateway operational, a learner can pay his admission fee and examination fee online through credit card (Master/Visa). In addition to admission fee and examination fee, a Student can also pay the requisite Fee through Credit Card (Master/VISA) **for obtaining Duplicate Documents and for other Services.**

From the year 2007 -08, NIOS has introduced the facility of Submission of Examination Forms On-line (only for the Students Registered under Online mode). A Student can pay fee through Online Mode by Credit Card (Master/VISA).

No of Candidates Registered for the Four Streams of On-line Admission during 2007-08

S.No.	Stream	No. of Students Admitted
1.	Stream 1	16780
2.	Stream 2	10827
3.	Stream 3	815
4.	Stream 4	602
	Total	29024

Management of Students Database

The enrolment of students is increasing steadily over the years. Starting with 40 thousand students in 1990-91, the enrolment during the year 2007-08 was 340 thousand. The cumulative enrolment during last 5 years is about 1.5 million. The Computer Unit of NIOS manages the students data through Relational Database Management System (RDBMS). Various statistical reports

and MIS reports are generated for use of NIOS faculty and Staff.

Student Information System

Starting from Registration(Admission) to the issue of Certificates, all the processes have been computerised. These include Admission, Examination and Result and Certification.

Library Management

The Library of NIOS is fully computerised and is presently using the Integrated Library Management Software.

Administration and Accounts

The Accounts Unit is fully computerised by using the integrated software package. The Computer Unit has computerised the salary accounts. The individual Pay-Slips, Bank Statements and the related reports are generated. The annual Income Tax and GPF statements are also computerised.

On-Demand Examination System (ODES)

Presently the ODES is operational at NIOS Headquarters, NOIDA and at the Regional Centre, Pune. The ODE Centres are proposed to be opened in other Regional Centres of NIOS also in the next phase after installation of necessary infrastructure.

With success of On Demand Examination System at Secondary level, it was started at Sr. Secondary level also during 2007 with six Subjects, namely, Hindi , Mathematics, Physics, Business Studies, Home Science and Political Science. Some other subjects will be included in due course.

Other ICT Initiatives

Connectivity with Regional Centres under Wide Area Network

NIOS is providing connectivity with all the Regional Centres using Wide Area Network (WAN) technology which helps in sharing information between the different Regional Centres and the Head Office of NIOS.

E-Learning through Virtual Classroom

NIOS has envisaged providing to the learners the facility of Education through Virtual Classroom.

On-line Applications for Accreditation

NIOS is in the process of developing on-line application for Accreditation of Study Centres. This will be a milestone in the direction of E-governance venture. As it will enhance accuracy of the information related to accreditation of institutions as the study centres of NIOS. Besides ensuring **transparency**,

provision of on-line application for accreditation will help learners/schools/institutions in knowing their status on-line.

2.7 Summing Up

Knowledge is power. Our economy is knowledge driven and knowledge is the gateway to quality of life. It is therefore essential that the national educational system ensures easy access to knowledge for all. Open Schooling is a design that democratizes knowledge and through its system design, is able to 'reach the unreached'.

Curriculum Design and Course Development in NIOS

Creating an alternative Curriculum for Quality Education

- 3.1 Introduction
- 3.2 Modular Organization of the Curriculum
- 3.3 Spiral and Linear organization
- 3.4 Curriculum Development Design
- 3.5 Courses offered at the Secondary and Senior Secondary Stages
- 3.6 Vocational Education and Training
- 3.7 Summing Up

3.1 Introduction

Curriculum provides the foundation and is the heartbeat of the education system. Open Schooling (OS) is a relatively new entrant on the educational scene. It is necessary that while preserving basic equivalence in terms of basic criteria for certification, OS must also ensure that it preserves its legitimate areas of differences. The organization and development of an appropriate Curriculum will ensure that the large educational goals and societal expectations from OS will remain in place, even while catering to the personal

needs and conditions of the individual learners.

3.2 Modular organization of the Curriculum

Open Schooling follows the widely accepted pattern of making all courses, and all programmes modular in nature. Each course would consist of a given number of modules, which, while self-standing in some measure, can also be linked to other modules to meet the eligibility demands of a receiving institution or for purposes of certification. Thus curriculum becomes more inclusive by adopting a modular approach. The learner is free to choose modules of his interest, while ensuring that certain required modules for eligibility are kept in mind. Modular approach enables the learner to select various modules, keeping compatibility and basic norms that the system may prescribe. However, principles of progressive differentiation and compatibility must be observed while developing modules. Organization of content in a module has to be done with great thought. A module is not a just a text in a chapter. While it retains the element of being self-contained, up to a point, at the same time it also retains its ability to connect and get attached to another module or modules to make a new meaningful whole.

A basic feature of the ODL system is its flexibility and readiness to adapt to suit the needs of the learner to the extent possible. In ODL system, emphasis is given to open secondary and open senior secondary courses but also to open elementary education and vocational education. ODL system should also put great emphasis on life enrichment courses as well as on development of life skills.

3.3 Spiral and Linear Organization

In the conventional system, Curriculum contents are generally organized in linear and sequential manner, one learning point leading to another. This sequence is built up from stage to stage and grade to grade. In modern practice, instead of linear organization, it has been found to be better to organize the contents *spirally*. The strength of the spiral approach is that it starts with the core concept at the beginning and then gradually evolves it into finer details and branches off, making the content deeper and wider at each stage. This increases the level of understanding and as a result, students are more empowered to make practical applications in life.

Curricular Contents become meaningful when they are organized contextually. Knowledge remains bookish and verbal and cannot be fully assimilated, unless it is concretized and connected to life contexts. Similarly abstract knowledge can easily be assimilated if concrete examples are given and contextualized with social reality. It is therefore, very essential that the content of learning should be contextualized, concretized and illustrated. These concerns are kept in mind, when NIOS develops its curriculum and course material.

Open Education has been a green house of educational innovations. The flexible scheme of studies and evaluation which emerged with ODL system has now been recognized by face-to-face conventional system also. The modular approach of ODL system was also seen as an advance over the normal textbook lessons. The contents of ODL system have always followed a stage-wise approach. In open basic education curriculum contents are not divided class wise. This approach has been duly recognized in NCF 2005.

3.4 Curriculum Development Design

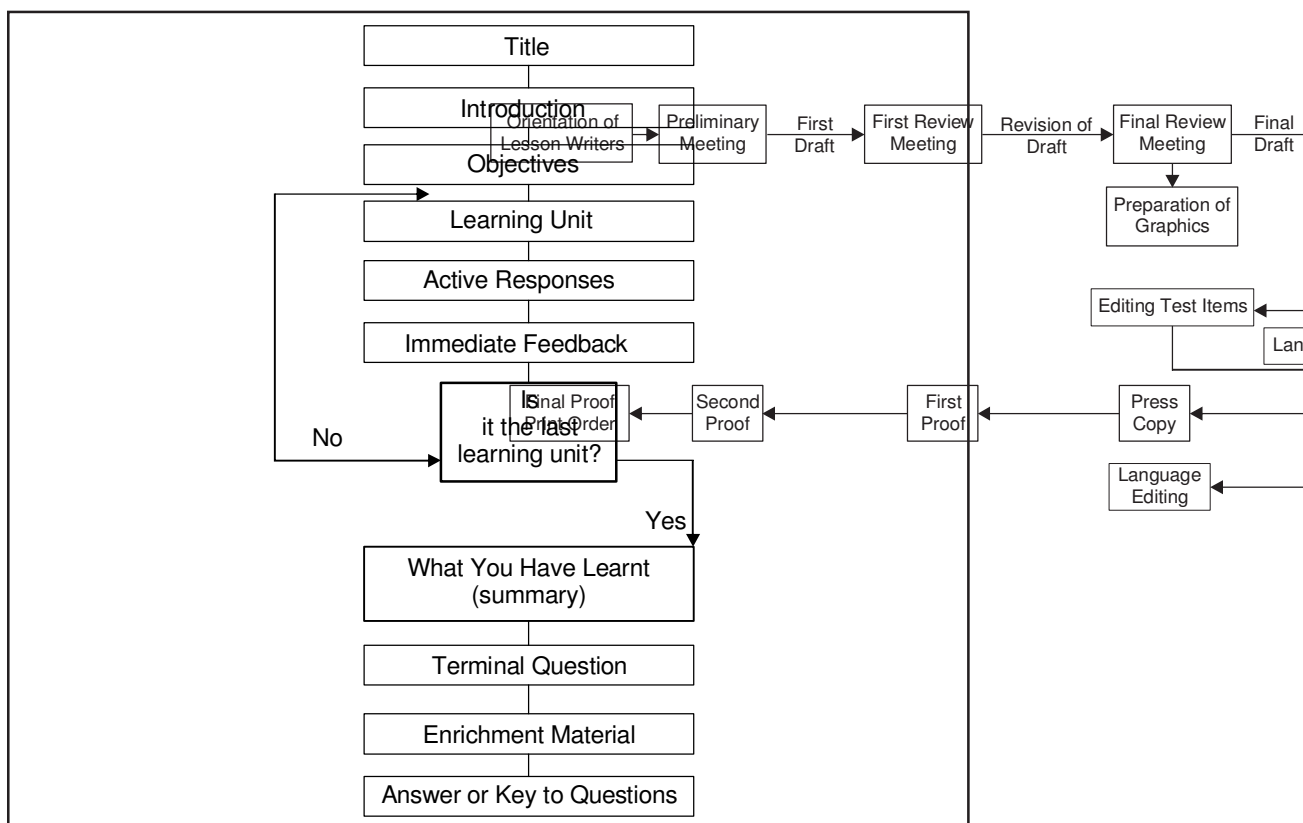
Course planning-design-development-despatch is a long process, and the long time taken between the initiation and the production of the printed material is because of the several stages that the course units pass through (See Fig. 3.1)



Fig. 3.1 Material production - a flow chart

Individual lessons also follow a strict DL format, in order to make it, as far as possible, self-instructional. For this, certain amount of periodic feed-back and interactive features are incorporated into the lesson. Even without a teacher present, the printed text becomes then interactive.

The following chart illustrates the format of a typical self instructional lesson.



3.2 Format of a Lesson

3.5 Courses offered at the Secondary and Senior Secondary Stages

A large number of courses are offered at the Secondary and Senior Secondary level. (refer to section 2.5)

3.6 Vocational Education and Training (VET)

Recognizing the rapidly changing needs and contexts of the country, the NIOS has been laying emphasis on providing vocational education and training since its inception. There is often talk of *vocationalizing education* namely developing a healthy attitude towards work and life. In order to *translate India's demographic dividend into a development dividend, we need to provide vocational education and training*, with its focus on knowledge acquisition and skill development to meet the challenging demands of life. The current five year plan gives top priority to VET. The Prime Minister has even spoken of a *Vocational Education Mission*.

In the context of human development initiatives in India, VET is used as an umbrella term covering both vocational education and vocational training. Vocational education refers to an educational process, including practical work and supplementary work attachments, designed to equip a learner with the knowledge, attitudes and competencies related to occupations in various sectors of economy and social life. Vocational training refers to training for employment in clearly specified trades. VET envisages effective interface between academic and practical training necessary to enable the learners to acquire all competencies required to pursue a vocation. Equal focus has to be given on vocational educational and vocational training as two integral and inseparable components of the same. We have a knowledge-based and technology driven society today. Hence we require a much larger skills base than what was needed even a couple of decades ago. Besides, vocations are multiplying at a rapid pace. According to one survey, there are 2,954 vocations in the organized sector. It is any one's guess how many times more of vocations exist in the informal sector of economy which is much larger.

The impact of technological revolution has changed the transactional methodologies for imparting vocational skills. This is equally applicable in the Open and Distance Learning domain. Today learning resources namely audio tapes and Compact Discs (CDs), video tapes and Video Compact Discs (VCDs), radio and Television broadcast, computer and internet, wireless phone and landlines, one-way and two-way audio and video conferencing, interactive video, work-bench and workplace attachment, mobile training vans for multi-skills, constitute the wave teaching-learning materials and delivery systems which can transform both the quantity and quality of VET through the ODL.

The list of courses that NIOS offers is given in section 2.5.

3.7 Summing up

Parity of standards does not mean sameness of contents learnt. Open Schooling is a system that provides learning opportunities to all. It helps them to learn what they want, where they want and when they want. With this overarching principle, Open Schooling provides modular courses with in-built flexibility for choice at the hands of the learner. It has also provision for add-on courses and modules to be taken by Open School learners, to accommodate to their needs and interests.

4

Curriculum Transaction Processes

Learning to Learn and Learning Supports

Through a careful integration of lessons that are mainly self instructional, with the additional supports provided through Personal Contact Programmes, and through the use of audio and video materials, the distance learner of NIOS has the opportunity to learn differently and to learn more effectively.

- 4.1 Instructional Process
- 4.2 Learning made effective through inter-linked support packages
- 4.3 Regional Centres and Study Centres
- 4.4 Personal Contact Programmes (PCP)
- 4.5 Mind Maps
- 4.6 Summing up

4.1 Instructional Process

Instruction in NIOS is a planned and a deliberate attempt is made to help the learner assimilate and consolidate the learning experiences. The critical elements are the learner, the learning experiences and the learning context. To support and supplement, there are the teachers, the study materials and the teaching methodology. In any transaction process nothing can be “given” to the

learner. It is the learner who must “pick” up the message. It is the learner who must “make” meaning out of it and it is the learner who constructs knowledge.

While in the face-to-face system, the teacher plays an important role in the instructional process, in ODL, the instructional package and its several support systems make key contributions. The learner is more autonomous in ODL than in the conventional mode. Rather than the teacher, it is the “teacher-in-print” who plays a key role in ODL.

4.2 Learning made effective through inter-linked support packages

By referring to Figure 3.2, one can readily understand why the lesson is called a “teacher-in-print”. The lessons of the study materials are prepared with great care. They are aimed to serve as self-learning packages, to a great extent. However, most, if not all the learners require some additional learning support. NIOS provides these in the form of audio and video tapes, and through Personal Contact Programmes. As access to technology advances, more and more of these learning facilitators will become available to the OD learner. We have also referred to the use of Concept Maps or concept Webs to facilitate and deepen learning. (Confer 4.5)

It would be wrong to assume that all educational objectives (cognitive, affective, and psychomotor) can be taken care of by study materials alone. When it comes to practical work, or to the development of social skills and life skills, study materials need to be supplemented by contact programmes, and through well designed experiences and reflection. The availability of tutors and teachers as mentors who are ready to accompany the students in their learning experiences is a major support system to holistic learning and development in the ODL as in the formal system.

4.3 Regional Centres and Study Centres

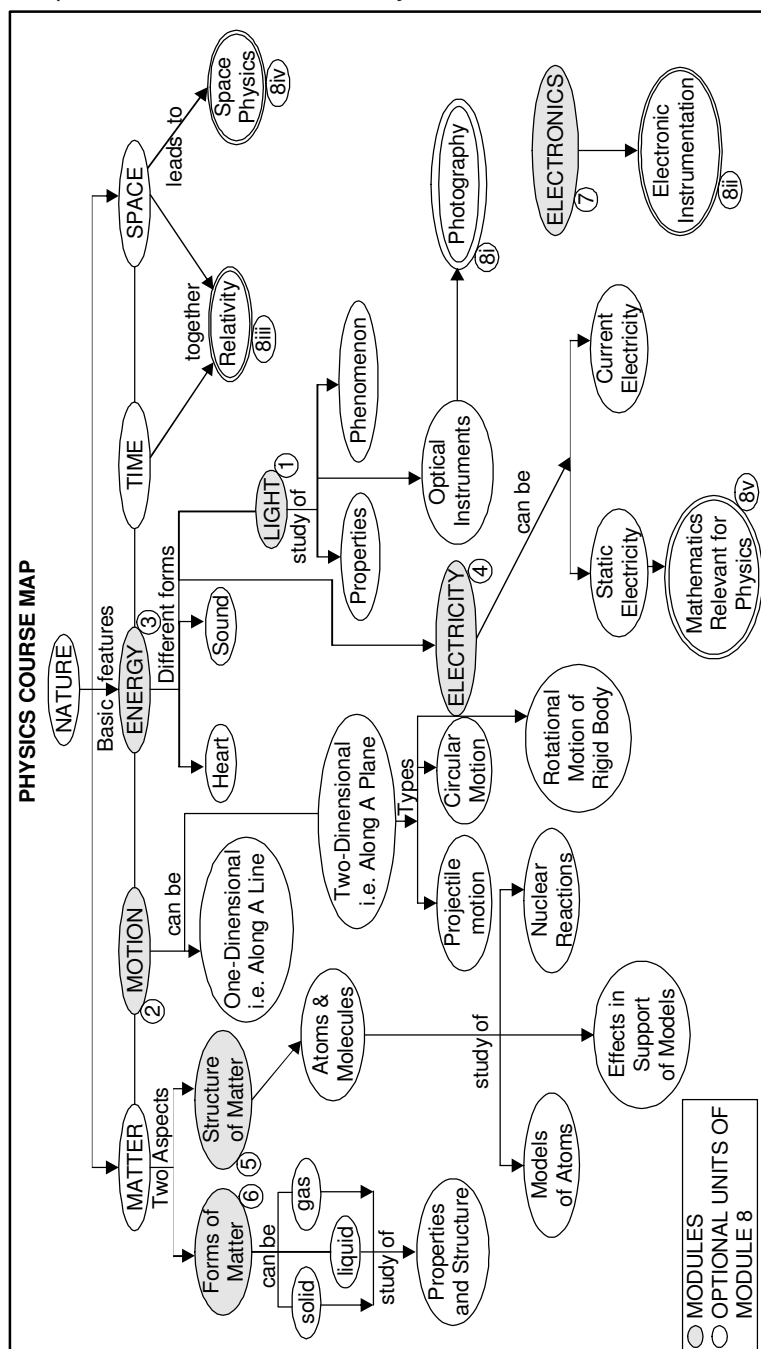
NIOS has set up 11 regional Centres in different parts of the country. The Regional Centres are located in Allahabad, Bhopal, Chandigarh, Delhi, Guwahati, Hyderabad, Jaipur, Kochi, Kolkata, Patna and Pune. Under each, the Accredited Institutes serve as study centres. Currently, they total 3286. These include 1085 Accredited Vocational Education Institutes. With the aim to reduce or eliminate distance and to provide quick information and support to the learner, these regional centres and study centres act as information centres, resource consultation centres and tutorial and counselling centres.

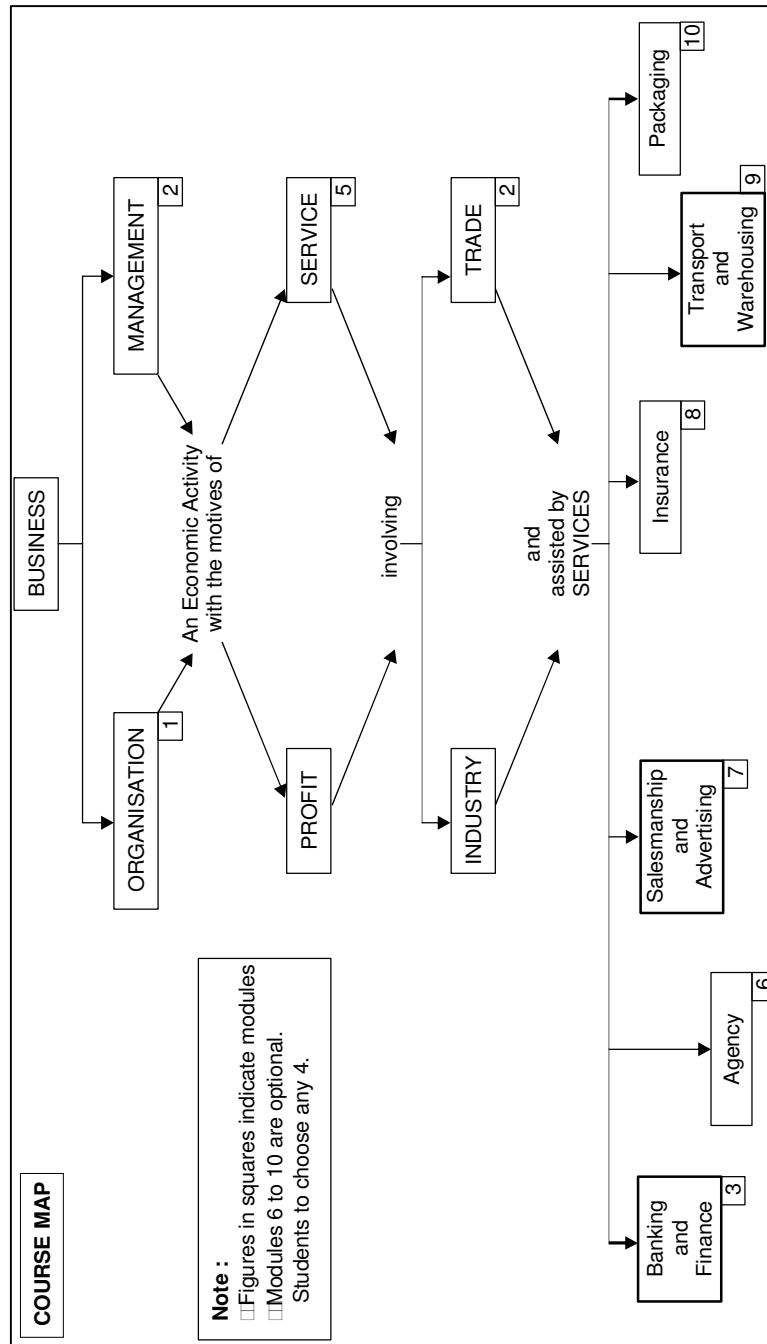
4.4 Personal Contact Programmes (PCP)

Even though the learners are located at great distances from the headquarters, the learners have to maintain some degree of contact with the teacher, besides the print and audio or video contacts. *Mentoring* and *accompaniment* are non-negotiable components in any effective process of learning, especially in the formative years. This is also true, when one deals with learners, who had experienced a great deal of failure or deprivation and are hoping to get a second chance access to life through a second chance education. Such students need this teacher accompaniment. The quality of this relationship, this *rista*, makes a great difference in the ODL. As regards budgeting of time during contact programmes, sixty percent of time should be devoted to solving individual problems or on tutorials. In the remaining time, students can be provided teaching of basic concepts. A small gap in understanding of basic concepts results in wider disparities of student's performance later on.

4.5 Mind Maps

NIOS had developed Mind Maps or concept Maps to help the students to understand the topic of a whole chapter better, by seeing all the connections and sub-connections and how each is linked to the other, namely their inter-dependence. Like a spider's web, the Mind Map has major anchor lines and sub-lines attached to these. MM demonstrates a pathway to better learning. It will help answer the questions: what comes before and what comes after; what is the cause and what is the effect; what is the principle and what are the applications etc. It is as much a teaching help to the teacher as it is a learning help to the learner. The entire course can be presented as a summary Mind Map, which gives them a holistic perspective or bird's eye view of the whole course. Similarly, one topic can also be put as a Mind Map. When undertaken





4.6 Summing up

The life line of ODL system is the quality of the self instructional study materials (SISM) and the quality of the Student Support Services. By design and in spite of the size of its clientele and the vast geographical outreach, ODL is expected to function efficiently, in terms of services and information. If a bureaucratic approach and an absence of a sense of service and commitment to the needs of its clientele creeps into the system, then, its effectiveness will rapidly decrease in what was created as a very relevant institution.

5

ASSESSMENT AND CERTIFICATION IN NIOS

Through Conventional and Digital Modes

This chapter gives an inside view of the complexity of the processes of conducting two public examinations in a year by the NIOS and its academic results.

- 5.1 Introduction
- 5.2 Types of Assessment
- 5.3 Public Examinations
- 5.4 Special Provision for those with Special Needs
- 5.5 On Demand Examinations
- 5.6 Learners Certified in NIOS exams
- 5.7 Examination Reforms
- 5.8 Credit System
- 5.9 Grading System
- 5.10 Certification Criteria
- 5.11 Summing up

5.1 Introduction

Assessment of one's learning achievement is what every student desires. Many have a short term purpose, namely to know if they have passed or failed. Pass will often mean a door open to a job or a better job. This is the summative aspect of assessment. In the formal system, where the students and teaching community are together for a period of 10-12 years, there is a formative and on-going feed-back mechanism. However, this aspect has only limited application in the ODLS.

5.2 Types of Assessment

Continuous self assessment of students: The SIM format of the lessons provide the students with an instant feedback, without the damage caused by the stigma of failure. After further study, the student can again answer the questions and verify if he/she has mastered the lesson. While the formal system is adopting a system of Continuous and Comprehensive Evaluation (CCE) of students, the NIOS students will have an accommodated system for use.

At the study centre, the students have a chance to get one's work and progress assessed. Tutor Marked Assignments are a help in this regard.

5.3 Public Examinations

Public Examination at the end of the course: As a student friendly system, NIOS conducts two full scale public examinations each year. An enormous

amount of careful preparation, planning and execution alone will result in the successful conduct of the examination. To give a small insight into the complexity of the process, here is a list of items that are to be attended to, when conducting a public examination in the NIOS

Pre-Examination / Examination period work

1. Paper setting- three parallel sets in each subject
2. Moderation of papers set and checking of marking scheme
3. Forwarding manuscripts to press for confidential work and issue print order to press
4. Forwarding Centre wise numerical data to press
5. Forwarding centre Notification to press
6. Schedule of despatch to press and issue of advance instruction to custodian - Bank and Centre Superintendents
7. To make arrangement with postal authority for special booking
8. Monitoring the despatch of printed question papers by press
9. Receipt of Question Papers by custodian Bank
10. Forwarding manuscripts of Marking Scheme to press for computerization and receive the same back on the day of Examination
11. Supply of Marking Schemes and Question Papers to the Academic Department for Standardization
12. Process bills of paper setting, moderators and Confidential press for payment.

To conduct a public examination nation wide there is a lot of interdependence among the different departments of NIOS and the regional centres. The table given below shows how the dates are culculated backwards to take care of each step by the different departments/regional centres to complete the given work on time.

S.No	Item	Dates for Oct./ Nov., 2008 exams	Action By
1.	Commencement of Theory Examination. Sr. Secondary Secondary	11.10.2008 13.10.2008	H.Q
2.	Printing and despatch of examination forms to all the Als	05.06.2008	Head R.Cs
3.	Statement showing expected no. of candidates for Oct-Nov,08 exam. to each Regional Centre.	20.06.2008	SAP
4.	Depositing of exam. fees by students at their respective Als.	16.06.2008 to 30.06.2008 (without late fee) 01.07.2008 to 04.07.2008 (with late fee of Rs.15/- per sub.)	Head R.Cs
5.	Acceptance of exam. fees by Heads of Regional centre from candidates of cancelled /Non-functional Als at the respective Regional Director office.	16.06.2008 to 30.06.2008 (without late fee) 01.07.2008 to 04.07.2008 (with late fee of Rs.15/- per sub.)	Head R.Cs
6.	Acceptance of Examination Fees with consolidated late fee of Rs.500/- at concerned Regional Centres only.	05.07.2008 to 20.07.2008	Head R.Cs
7.	To send the proformas of Centre Acceptance/ Bank Acceptance to Als/reputed Institutions for fixation of exam centers for October-November,2008 exam.	23.06.2008	Head R.Cs
8.	To give consolidated provisional requisition of Question Papers based on Admission data/ expected no. of candidates (Subject-wise) to Director (Eval.)	03.07.2008	SAP DD (Eval.)
9.	To send requisition for printing of Answer Books, Practical Answer Sheets and Blank Awards to Admn. based on expected no of candidates.	03.07.2008	DD (Eval)/ SAP
10.	To receive examination forms of candidates registered for examination with exam. fee from Als of the respective region by Regional Centres. For Delhi region the Als will send the exam. forms along with fee by hand.	05.07.2008 to 12.07.2008 05.07.2008	Head R.Cs
11.	To receive examination forms of candidates registered for examination with exam. fee from Als of the respective region by Regional Centres. For Delhi region the Als will send the exam. forms along with fee by hand.	05.07.2008 to 12.07.2008 05.07.2008	Head R.Cs
12.	Sending the name (s) of the (i) Chief Secrecy Officer, Secrecy Officers (ii) OSDs and (iii) Evaluators/Team Leaders to The Director (Evaluation) for CM's approval.	01.08.2008	Head R.Cs

13.	Computerisation of data for candidates registered for exam .(AI wise) by Regional Centres.	02.08.2008	Head R.Cs
14.	To submit the Centre Notification for fixation of Examination Centres indicating the no. of candidates A.I. wise to the Dir.(Eval.) by the Head Regional Centres.	04.08.2008	Head R.Cs
15.	Checking, editing and verification of data got punched by Regional Centre pertaining to each AI.	07.08.2008	Head R.Cs
16.	Sending the Data through E Mail to Computer Unit HQ. (also in CD) after checking edit list, Master of Missing candidates and validation with admission data by all the Regional centres.	09.08.2008	Head R.Cs
17.	All final validation edit Master of Missing candidates with Admission data to be done by Computer Unit at Head Quarter.	14.08.2008	SAP
18.	To give centre wise/subject wise Q. P. statement to Director(Eval)	19.08.2008	SAP DD (Eval)
19.	To send the finalised data of all AIs as well as examination centres on E-mail as well as on CD by SAP to all R Ds along with (i) Numerical Statement (ii) Statement for Secrecy and (iii) Evaluation work	21.08.2008	SAP
20.	To send list of eligible candidates to all AIs by R.Cs	23.08.2008	Head R.Cs
21.	(a) Statement of Answer Books and acknowledgement letter Centre wise to be given to Admn. (b) Despatch of Answer Books and Practical Answer Sheets to exam centres by Admn. (c) To take acknowledgement of Receipt of Answer Books from all Examination Centres.	28.08.2008 02.09.2008 20.09.2008	SAP D.D. (Eval.) Admn.
22.	To send scanned data nominal roll to Exam Centres by Head Regional Centre.	02.09.2008	Head R.Cs
23.	Sending the approval of centre advance to Admn. for transfer of centre advance to the Regional Centre under intimation to RC.	08.09.2008	DD/SO (Eval.)
24.	To send the Centre Material to all the Examination Centres	10.09.2008	DD/SO (Eval.)
25.	Permission of Writer and other facility as per NIOS rules by Head R.C.	As per request	Head R.Cs
26.	To receive UFM cases from Heads RCs to Director (Eval.)	10.11.2008	Head R.Cs

27.	1) To receive awards of all subjects of Sec./Sr. Sec. at NIOS HQ (both Delhi and outside Delhi Region.) Sr. Secondary – (Theory + Practical) Secondary – (Theory + Practical)	15.10.2008 10.11.2008	Head R.Cs
28.	To receive consolidate reports of OSD with comments of Head RCs	15.11.2008	Head R.Cs
29.	Declaration of result (i) For Delhi and outside Delhi candidates (Sr. Sec) (ii) For Delhi & outside Delhi candidates (Secondary)	08.12.2008 10.12.2008	HQ

5.4 Special Provision for those with Special Needs

Facilities for the differently abled Children: In the examinations conducted under ODL system, necessary facilities are provided to the students who are differently abled. It is possible for the blind to take the examination with the help of a writer, who writes for them while the candidate dictates the answer. For others with orthopedic or other handicaps, NIOS makes special provision.

5.5 On-Demand Examination System (ODES)

Besides two public examinations in a year, NIOS conducts On Demand Examinations at Secondary level and in some subjects of Sr.Secondary. Under the scheme of On-Demand Examinations, a learner can register for On-Demand examination and seek a date as per the capacity of the testing centre. On the given date, the learner can walk into the identified Testing Centre of NIOS on the prescribed date and can appear in examination in the registered subject.

NIOS conducts On Demand Examinations at Secondary and Senior Secondary level in the following subjects:

Secondary Stage: Hindi, English, Sanskrit, Mathematics, Science, Social Science, Economics, Commerce, Home Science, Typing (Hindi), Typing (English), Word Processing and Psychology.

Senior Secondary Stage

- Besides Mathematics, Physics and Commerce, three more subjects were added in the ODE w.e.f. January, 2008 namely, Hindi, Home Science and Political Science, thereby increasing the number of subjects to six under the ODE system. The ODE questions bank for the remaining subjects is being developed.
- Presently, the On Demand Examinations at the Secondary and Senior Secondary stages are being conducted at the NIOS headquarters from Tuesday to Friday (except on public holidays) with a capacity of 130 students per day and at NIOS Regional Centre Pune (for Secondary stage

only) with capacity of 25 students per day. The practical examinations are conducted on Fridays in the reputed designated CBSE affiliated schools.

- To meet the demand of candidates for On Demand Examination, the frequency of On Demand Examination was increased from three to four times a week.
- To facilitate the candidates, On Line Registration of On Demand Candidates was introduced and manual registration was stopped.

Number of Candidates Appeared and Pass under On Demand Examination

(From April 2008 till March 2009)

1. Secondary Course

Subject	Appeared	Pass	Pass%
Hindi	1223	771	63.04
English	2120	605	28.53
Sanskrit	81	3	3.70
Mathematic	2021	400	19.79
Science & Technology	2057	134	6.51
Social Science	2085	564	27.05
Economics	1349	559	41.43
Business Studies	1111	616	55.44
Home Science	1118	733	65.56
Typewriting (Hindi)	-	-	-
Typewriting (English)	-	-	-
Word Processing	721	380	52.70
Psychology	144	24	16.66
Total candidates	6654	965	14.50

No. of Candidates Appeared and Pass under On Demand Examination

(From April 2008 till March 2009)

2. Senior Secondary Course

Subject	Appeared	Pass	Pass%
Mathematic	1447	287	19.83
Physics	1149	248	21.58
Business Studies	628	497	79.14
Hindi	1196	479	40.05
Home Science	788	410	52.03
Political Science	406	195	48.02
Total candidates	5614	2116	37.69

5.6 Learners Certified in NIOS Examinations

The table given below gives the number of learners certified in the NIOS Examinations from June 1991 onwards.

Learners Certified in NIOS Examinations

Course Exam →	Secondary Course	Sr. Secondary Course	Vocational Course
	Certified	Certified	Certified
Jun-91	5388	5185	—
Nov-91	3622	3055	—
May-92	6700	4736	—
Nov-92	3328	3716	—
May-93	9140	6700	720
Dec-93	4431	4942	546
May-94	12067	10864	812
Nov-94	4899	6196	415
May-95	4692	5169	501
Nov-95	4895	5893	518
May-96	15082	7900	312
Nov-96	8141	5258	550
May-97	17889	9138	706
Nov-97	9268	→ 5559	942
May-98	18204	11538	979
Nov-98	9674	6773	1680
May-99	25309	13426	1962
Nov-99	16366	9777	1873
May-00	31818	13024	3670
Nov-00	13625	8808	2126
May-01	33849	17858	2680
Nov-01	15804	12267	3997
May-02	48653	23579	5795
Nov-02	20309	14913	3671
May-03	99250	39603	8251
Nov-03	23663	20181	3536
May-04	77570	36660	7254
Nov-04	26786	17999	5220
Apr-05	46728	36436	8006
Oct-05	26743	24247	5676
Apr-06	56489	47521	6155
Oct-06	28054	22843	6265
Apr-07	59710	51447	6343
Oct-07	34681	29378	6279
Total	827877	546319	97440

5.7 Examination Reforms

As a continuous process of examination reforms, a third Workshop on Strategies for Examination Reforms – Open Schooling System was conducted at Manali in May, 2008 and as a follow up a fourth Workshop was conducted on 4-5th January 2009 at Nanital in which eminent educationists from the country participated and suggested examinations reforms in NIOS examinations.

5.8 Credit System

NIOS permits the learners to take the examination in one or more subjects at a time. These passes, once earned, are preserved in the computer and can be accumulated till one meets the certification criteria of pass in 5 subjects. NIOS has entered into partnership with CBSE and a few selected boards for the transfer of credits. One or at most two passes obtained by a student in another Board is accepted as credit by the NIOS and the student has to pass only in the remaining three or four subjects in order to qualify for certification. This openness on the part of both the formal Boards and of NIOS is a bold innovation and paves the way for many future ways of collaboration.

5.9 Grading System

NIOS indicates the achievement in marks. But following the national policy on education of 1986, which recommended that we move from marks to Grades and in the light of gives the Government of India announcing such a switch and the introduction of Continuous and Comprehensive Assessment (CCA), NIOS will consider the matter and arrive at appropriate decisions.

5.10 Certification Criteria

In order to ensure equivalence and accreditation of the ODL System by the formal Universities and Boards, and in order to ensure easy transfer from one to the other, NIOS has the following certification criteria

For Secondary certification, at least one language and not more than two, namely a total of five subjects of one's choice with 33% as the pass mark.

For the Senior Secondary certification, at least one language and not more than two with a total of five subjects of one's choice with 33% as the pass mark.

5.11 Summing up

Assessment, coming at the end of the learning process, can be seen as the last item or as the fulcrum that can create a great deal of revolution and renewal in education. Like other dimensions of Open Schooling, assessment too is characterized by flexibility involving on demand examination, flexible duration and inter-system transfer of credits. To meet the challenge of numbers, to enhance standards and to avoid use of unfair means, computer technology can be used in a big way to conduct public examinations as well as on-demand examination effectively.

The Way Forward

This chapter delineates the directions in which the ODL system and specifically the NIOS and the State Open Schools (SOSs) are like to proceed in the future. It highlights the strategies required to be make ODLS a credible alternative system of education that will also promote the evolution of a knowledge society in India by universalizing education.

6.1 Introduction

- 6.2 Learning, Development and Open Schooling
- 6.3 Life Skills: an integral part of Modern Curriculum
- 6.4 Open Basic Education Programme and Sakshar Bharat Programme of National Literacy Mission (NLM)
- 6.5 Increasing Access
- 6.6 Skill Development through Vocational Education
- 6.7 Improving the Quality of Learner Support Services
- 6.8 Research and Development
- 6.9 Capacity Building of ODL Personnel
- 6.10 Evaluation of Students' Performances
- 6.11 Promotion of Open Schooling
- 6.12 Harnessing ICTs in Open and Distance Learning Environment
- 6.13 Education of Special Disadvantaged Groups
- 6.14 Implementation Strategies
- 6.15 Summing Up

6.1 Introduction

We have given a detailed description of the alternate system of education that is rapidly developing worldwide and in India and have given a full account of the NIOS Story. The present chapter will spell out several directions and strategies that need to be taken so that the Open Schooling movement is carried forward, as envisaged in the National Education Policy. Specifically we will talk about the role and responsibilities of the NIOS and of the State level Open Schools to become agents which will contribute, in significant measure, to bring about the transformation of the country, through a sea change in the quality and quantity of educational provision.

In the recent past, a number of significant path breaking initiatives in terms of policy directives as well as reforms have taken place. The most historic of these has been the recent passing of the Right to Education Act. As per the Act, free and compulsory education has been made a Fundamental Right which has to be

provided by the state to all children in the 6-14 age groups.

The Government has called for a determined action for making India a literate society. The Prime Minister's Council on Trade and Industry which has set up a Special Subject Group on Policy Framework for Private Investment in Education, Health and Rural Development has stated that "as the world moves to forging an information society founded on education, India cannot remain behind as a non-competitive labour oriented society. Therefore, a vision for education in India has to inspire creation of a knowledge-based society, induce competitiveness yet foster a sense of co-operation. According to this, the vision for education in India would be "To Create A Competitive, Yet Co-Operative, Knowledge Based Society."

In view of these developments, the NIOS as the apex body for Open schooling in the country and one that has been assigned a national lead role by the Government, has to move forward at a rapid pace and set the stage for overall reforms that would lead to a more inclusive education system of quality for all.

6.2 Learning, Development and Open Schooling

Since learning is an essential constituent for development, in our democratic polity, access to learning must be made available to all. That is why the international community has committed itself to reach the goal of Education for All (EFA) at Dakar. The UN has set eight Millennium Development Goals (MDGs) to be achieved by 2015 by all the nations. Universalisation of Primary Education is among these goals.

Though we have had a significant expansion of formal education over the last 60 years, we are still to achieve fully the goal of Universalisation of Primary Education (UPE). But the success of the Sarva Shiksha Abhiyan(SSA) has led to a resurgent need for secondary level school education. With growing realization of the relevance of education for life and living, an increasing number of those who complete primary are moving to the middle stage and then to the secondary. Hence, there is talk of universalizing secondary education. The Government of India has set up the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) which states as its vision "good quality, accessible and affordable secondary level education to all." Where are the classrooms? Where are the human resources in terms of teachers? There is no doubt that formal education by itself will not be able to meet the huge challenge of providing education of quality to all.

Together, the formal system at the tertiary and at school levels, along with the growingly popular Open education at University and school levels, can contribute to the making of a New India, an India of the Constitution, by providing education of quality to all at a greatly reduced cost. The formal system has largely failed to provide an inclusive education of quality. This will be the contribution of the Open System, because of its ability to reach the unreached.

Since knowledge is a major resource, the prevalent pattern of a very passive way of acquiring and retaining information and data must give way to a more learner-active approach, so as to provide much more scope for personal involvement, questioning and discovery. This will make knowledge become a personal and personalized possession and will give meaning to one's life. A multi-mode learning package that the ODL offers will provide answers to the learning status of the students, and point to directions for both the formal and open systems to follow. Such knowledge can then be applied to practical life and conditions, namely a knowledge that has plenty of scope for creative new applications.

6.3 Life Skills: An Integral part of Modern Curriculum

Life Skills: In today's world, mere technical competence, while necessary, is not enough to meet the demands of a job and much less, the demands of life. Hence, the modern curriculum must make a specific contribution to the development of life skills or soft skills.

Life skills/ Soft Skills are essential to lead a happy life in the present democratic society where one encounters a number of problems in different fields, whether at work or at home or in dealing with the many conditions and situations in society. These skills relate to the head, heart or hand or to one's health. These skills enable a person to live one's life both efficiently and effectively. Every individual is unique and has been endowed with a set of talents and abilities. To discover and develop these is the goal of education, so that one is able to meet the demands of life and living and is also able to contribute to the larger dimensions of life. In the pursuit of this life goal, mere stress on professional/ technical or subject-related or job-related skills is not sufficient. One must also make special effort to acquire certain skills or competences to deal with the diverse conditions obtaining in the economic, social, and technological fields, linked to one's life through the life skills or soft skills as well.

The World Health Organisation (WHO) defined life skills as abilities to face the day-to-day complex situations successfully and adjust with them efficiently. It recognized ten life skills that are pivotal to lead a healthy and happy life, so that all the human resources can be utilized efficiently and effectively. These are:

- Problem-solving skills
- Critical thinking skills
- Creative thinking skills
- Decision-making skills
- Effective communication skills

- Interpersonal relationship skills
- Self-awareness skills
- Empathy
- Skills to cope with emotions
- Skills to cope with stress

The life-skills or soft skills are related to the various domains, namely head-related or heart-related or hand-related or health-related. To live effectively, one must learn to inter-link these different domains. Healthy lifestyle choices, stress management, disease prevention and personal safety are our prime concerns for better living. Self-esteem, self-responsibility, character, managing feelings and self-discipline are requisites for our well-being. In the absence of such soft skills, many otherwise technically competent persons either do not get selected or do not go forward while on a job or assignment. Such soft skills also include quality of language and communication ability, listening skills, readiness to learn, to change, to take risks, to venture into new and less travelled pathways of life, ability to work in a team cooperatively, to deal with adversity or failure, the habit of appreciating others and expressing it, a caring and sharing attitude, a joyful and optimistic outlook to life and conditions, good social etiquette and manners etc. etc. Imparting such life skills must be done through its infusion into the different courses in the curriculum. This remains a largely neglected area in our education curriculum. To ensure that the learners of the Open Schooling system get equipped to deal with life well, the balanced mix of technical and life skills is a must. This will give new opportunities to millions of people as it is aimed at empowering institutions, governments and individuals to develop learning strategies.

6.4 Open Basic Education Programme and Sakshar Bharat Programme of National Literacy Mission (NLM)

In the light of the recent Right to Education Act, there is a need to revisit the existing OBE programme of NIOS. The existing OBE programme has a target group of 6-14 years and 15 years and above age group of learners. Broadly the Right to Education Act has given every learner the right to educate him/her within the environment of formal system of learning. No institution can deny them formal education neither can the institute *fail* the learner. In this respect NIOS will have to redefine its policy of imparting education to 6-14 years age group and shift its focussed target to 15 years and above mostly to cover neo-literates with focus on skill development.

On 8th September 2009, the Government of India launched the Sakshar Bharat Mission. One of the objectives of the Sakshar Bharat Mission is to “enable the Neo-literates to continue their learning beyond basic literacy and acquire equivalency to formal educational system”. It is estimated that there would be 1.5 million neo-literates covered under Equivalency Programmes (EP).

NIOS needs to formulate a strategy for collaboration with Sakshar Bharat so that this common target group can be provided EPs through Open Schooling.

6.5 Increasing Access

The government has initiated the Rashtriya Madhyamik Siksha Abhiyan (RMSA) for Universalisation of Secondary Education. The NIOS would be an important instrument in realizing the goals of RMSA and would definitely be a centerpiece of this flagship programme.

It is envisaged that 15% of the total School going population from the age group 14-18 under RMSA would be covered through Open and Distance Learning (ODL) during 11th Five Year Plan. To realize this objective, a comprehensive planning is needed to meet this target. The NIOS, therefore has to develop strong media advocacy programmes in far flung areas for greater awareness of ODL system, encourage the State Open Schools to provide education through regional mediums, local specific curricula and take necessary steps to develop a strong network of Accredited Institutions for learners of all regions.

To reach out to Differently Abled persons a stronger network of Specially Accredited Institutions for Education of the Disadvantaged (SAIEDs) needs to be worked out. NIOS can plan to have a cell for Special Education/ Inclusive Education so that the instructors in SAIEDs are better equipped to meet the special needs of the learners. Special material such as Braille or interactive CDs, or audio Books need to be developed.

6.6 Skill Development through Vocational Education

India's transition to a knowledge-based economy requires a new generation of educated and skilled people. There is a growing demand for skilled workers but available data suggest that there is a huge gap between demand and supply through the formal system. For the system to become more relevant in the changing context, there is a need to create a new model of imparting vocational education (VE) that is flexible, sustainable, inclusive and creative. The Knowledge Commission has recommended a flexible vocational education system in the country. The National Institute of Open Schooling (NIOS) with its inbuilt flexibilities and openness can be the key institution in fulfilling this demand and ensuring proper certification. NIOS has been doing this for over a decade. The introspection shows that the VE needs great impetus.

6.6.1 Public Private Partnership (PPP)

The existing scheme of the Vocational Education needs to be strengthened by involving industries through a well conceived Memorandum of Understanding (MOU). Among other things, it may include matters such as designing of courses, development of curriculum, training of faculty/learners,

certification and placement of learners using Public Private Partnership (PPP) mode where the NIOS will be required to provide the academic leadership and the private partners will be required to create/share the infrastructure for skill development programmes.

6.6.2 Recognition of Prior Learning (RPL)

As has been observed, many people have skills and knowledge that enable them to gain a qualification without completing some standard training programmes or some courses of study. These skills and knowledge, that would have otherwise been developed through undertaking some accredited courses, could be gained through certain informal modes of learning such as self-tuition, work experience, life experience or skills inherited through family professions. Many institutions, including NIOS, have given due recognition to the credits that one earns during studies elsewhere. This is called Transfer of Credits (TOC) in common parlance in NIOS. Similarly there is a need to give due recognition/ credit to prior learning.

Recognition of prior learning (RPL) is an assessment process that assesses the individual's non-formal and informal learning to determine the extent to which that person has achieved the required learning outcomes, competency outcomes, or standards for entry to, and/or partial or total completion of a qualification. RPL recognizes this prior knowledge and experience and measures it in the context of the vocational courses in which the students are enrolled. A student possessing some of the skills and/or knowledge that are integral part of a course of study may not need to complete those units of the course in which he/she has already gained proficiency. Some significant benefits of adopting the RPL are:

- Due recognition is given to the prior learning
- Individual, if enrolled, can finish his/her courses earlier than its prescribed duration.
- Study load and costs are reduced.
- A student can pursue some additional study simultaneously leading to a second or added qualification.
- By identifying an individual's current competencies, RPL can effectively target training requirements.

6.6.3 Vocational Education for Disadvantaged Groups

There is a need to take up Vocational Education and Training (VET) programmes for disadvantaged, special groups and differently abled people. Persons with disabilities need to be given special treatment while designing vocational education courses and their needs and integration into the courses should receive appropriate attention.

6.6.4 Developing Entrepreneurial Skills

Entrepreneurial Skills should be developed through the Vocational courses, so that the learners are not mere job seekers but are job providers also. The vocational courses need to be competency-based and in modular form with provision of transfer of credit and multi-point entry/exit. The networking with Block Level Vocational Institutions (BLVIs), like Polytechnics and other institutions, would facilitate reaching persons in far flung areas giving them opportunities to pursue relevant and need based Vocational Education Courses.. Developing CD-ROMs, Video Films, Audio and Video instructional programmes, Multi-media Educational Packages as well as preparing Teacher Guides, Training Manuals for Non-Formal Vocational Education Courses, through short term courses, and developing guidelines for VEP project implementation would help in providing Hands-On-Training under the vocational education programmes.

6.7 Improving the Quality of Learner Support Services

To provide learner centric quality education, NIOS needs to further strengthen its Student Support Services. While the newly set up Learner Support Centre at the NIOS Headquarters aims to provide better support and redress the grievances of the learners, there are areas like the quality of Personal Contact Programmes conducted at the Accredited Centres, making relevant learning material available on time to the learners, providing quick feedback on the TMAs submitted by the learners etc which need more attention and better response.

6.7.1. Student Support Services through Community Schools

As the different States strive to meet increased expectations for student's achievement, there is a growing understanding that learning happens in many places and that school alone cannot meet the learning needs of children. Consequently, there is an increased willingness at the national, State and local levels to consider how the kinds of support conventionally found outside schools can complement learning in schools and collectively result in better outcomes. This is possible only if an effective partnership is built linking community and education. This is possible by tapping the community resources through NGOs/ local schools by making them partner in the education system.

The Community schools need to take a holistic approach to improve student's achievement, not only by providing quality instruction but also by offering a wide range of on-site support, services and after-school activities. The Community schools can act as a hub for a broad range of services and opportunities that can strengthen and support schools, families and communities. The Community School Partners would include parents, students, school staff, health and social service agencies, volunteers, business organizations and other community members who are interested in extending help in making the communities grow and flourish. In this, Community School

will offer a new centre of activity in neighborhood to get together for educational, social, recreational and cultural activities.

6.8. Research and Development

Research and Developmental activities, evolving innovative educational practices are the backbone of an educational system, including that of the ODLS. Research is needed to generate knowledge on various aspects that are necessary for successful creation and operation of distance education systems in terms of quality assurance and enhancement. The need for research in different aspects of Open Schooling is unquestionable. It is necessary to strengthen the system and explore new avenues of growth and development. Specially because NIOS has to work on Open Schooling and other ODL/ICT application for school level learning.

A Scheme of Grant in Aid for Research Projects in Open Schooling has already been developed by NIOS and got approved. The Research Advisory Committee (RAC) may identify different areas of systemic and functional Research and involve more research minded people within India or outside to investigate different aspects of Open and Distance Learning (ODL). The priority areas of research identified earlier by RAC needs to be reviewed. Some suggestions in this regard are as follows:

- Identification of certain priority areas for undertaking research studies.
- Standards of open school curriculum need to be tested and verified through research studies.
- Identification of the academic, professional and vocational education courses to be developed and offered, keeping in view the needs of various target groups, including deprived sections of the society, through comprehensive survey studies.
- Development of course materials, especially with ICT application, and assessing their efficacy through experimental and follow-up studies. Experimentation on making learning packages more self-instructional with and without practical components is the need of the day.
- Development of formative and summative models for evaluating performance of distance learners with the help of well designed experimental studies.
- Experimentation on alternative models/systems of evaluation based on changing needs and problems of learners under ODL system.
- Augmentation and strengthening of student support services, improvements in the delivery system, decentralization of administration and extensive use of communication systems need to be studied using the experimental and the case study approaches.

- Studies on entry behavior of candidates of ODL system need to be carried further.
- Evaluative studies pertaining to organization, methods, procedures and results in terms of the learning outcomes of distance learners, and the impact of distance/open education on the socio-economic development of various target groups deserve special attention for planning and policymaking.
- Creation of a centralized pool of research topics reflecting the priorities and thrusts of the school level distance education system.
- Setting up of a Sub-Committee of the Research Advisory Committee (RAC) to screen proposals for research and grants for minor and major research projects at school level;
- Provision for financial support for undertaking minor and major research projects on NIOS for M. Phil and Ph. D. level research studies.
- Strengthening of the basic research - in depth systemic research in ODL system- to strengthen the quality delivery of programmes.
- ICT and Media Research –Their contribution to significantly enhance learning
- Research or innovation introduced by NIOS like On Demand Examination, comparison between online and offline admission etc.

6.9. Capacity Building of ODL Personnel

The Open Schooling programme has increased access to education and has provided opportunities to millions to continue with their education although they cannot attend conventional schools for a variety of reasons. With such massive expansion of Open Schooling programme, there is a felt need to continuously orient, and train various functionaries involved in this venture through well planned and structured capacity building programmes. The capacity building of ODL functionaries need not be face to face interaction all the time. NIOS has already developed six printed modules in collaboration with the Commonwealth of Learning (COL) and has also produced audio tapes for this purpose. This Training Package, combined with modern technologies, can be profitably used for periodic in-service training of not only the NIOS functionaries but also of large number of personnel who get associated with the ODL system.

Study visits and training programmes both at national and international level need to be taken up so that a professional cadre of ODL functionaries needs to be developed. A separate training package to suit the training needs of the Open Schooling functionaries at international level will be developed. Ongoing orientation of NIOS Staff so that they provide efficient and prompt service is

an urgent imperative. An accountability system also needs to be set up and regular feedback sought and acted upon to improve performance.

Research and Training should definitely be two focal points for NIOS and need to be integrated. So far these could not be given due priority.

6.10 Evaluation of Students' Performances

6.10.1 On-Demand Examination

NIOS will continue offering opportunities to its learners to appear in public examinations twice a year (April-May) and (October-November). One of the significant initiatives of NIOS is the provision of On Demand Examination (ODE) throughout the year. An NIOS learner can enroll for On Demand Examination online and take the examination in different subjects as per his/her preparedness and convenience. The stress of taking all subjects at a time on fixed dates is considerably reduced under ODES. A unique question paper based on a meticulously developed design and blueprint is generated just before the examination for each candidate opting for ODES. This system not only obviates chances of mass copying but also increases the credibility of the examination system. NIOS introduced the On Demand Examination at the Secondary level in the year 2003-04. The facility of On Demand Examination at the Senior Secondary level was made available in some subjects from the year 2007.

In the coming years NIOS envisages to strengthen the system of On Demand Examination by offering it in all subjects at Secondary and Senior Secondary stages in all the Regional Centers. (At present the facility is available at the Regional Centres NOIDA and Pune). This means that Items Pools need to be developed in all subjects at the Secondary and Senior Secondary levels and required to be continuously updated with new and fresh items.

With the expansion of the OBE programme, the facility of On-Demand Examination should be introduced at this level also. It is only by making this facility available in the remote villages that NIOS can really hope to reach the unreached.

Another important dimension of the On Demand examination is the medium in which the question paper is generated. At present, the paper is bi-lingual – the question papers are being generated in English and in Hindi mediums. In future, NIOS envisages to work towards introducing the ODES in the Urdu medium.

The On Demand Examination System (ODES) can also be expanded to include the Vocational Education Subjects in future. To begin with, popular subjects like the computer Science can be brought within the ODES and later on introduction of ODES in other subjects can be thought of. The On Demand Examination can serve as a model builder in Other Boards.

6.10.2 Continuous and Comprehensive Evaluation (CCE)

Continuous Comprehensive Evaluation (CCE) of the learners also needs to be strengthened in the coming years. With the introduction of CCE at the CBSE board, the NIOS has to re-visit its policy on the Tutor Marked Assignment (TMA) presently been implemented as an mandatory component for evaluation of student performance. As presently conceived, the Tutor Marked Assignments (TMAs) are an important tool for formative evaluation. The learners are required to submit at least one out of the three assignments. However, the effectiveness of this tool in the present form need to be examined in the context of facilitating the learning process of young children. The alternative evaluative tools, which could facilitate learning of children could be explored in the context.

6.10.3. Grading System at Secondary & Senior Secondary Level

The National Policy on Education of 1986 had clearly mandated that we move from marks to grades. The Central Board of Secondary Education (CBSE) has already introduced the Grade system. NIOS has also to switch over to the Grading system to keep pace with changing times. But this change over presupposes intensive training of functionaries associated with examination and evaluation. The Regional Directors in different Regional Centers, Coordinators, Academic facilitators and Vocational Facilitators would also be required to be made familiar with the new system.

6.11 Promotion of Open Schooling

The State Open Schools (SOSs) have already been set up in 14 States in collaboration with and technical/ professional resource support and expertise from NIOS. All these State Open Schools need further upscaling and qualitative and quantitative improvement of Secondary and Senior Secondary Education, Open Basic Education programme and Open Vocational Education programme. As the scheme of Open and Distance Learning will form an integral part of the Rashtriya Madhyamik Shiksha Abhiyan, it is imperative to take effective steps to set up Open Schooling System in all the states to cater to the need of universalisation of Secondary Education through the regional language.

The States of North Eastern Region (NER), (especially Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Tripura, Mizoram, and Sikkim), require special support for educational development, particularly at school education level. Despite advocacy by NIOS, these states could not so far come up with concrete proposals to promote open schooling by setting up their own SOSs, This is an area of utmost priority for NIOS. The NIOS proposes to establish a special cell for NER to concretize various educational programmes at the elementary, secondary and Senior Secondary levels. The North East Region being a priority area for development by the Government of India, NIOS intends to make earnest efforts to promote open schooling in these states.

6.12 Harnessing ICTs in Open and Distance Learning Environment

ICT represents a set of technological tools used to create, store, communicate, and manage information. These technological tools include computers, telephone, internet, and broadcasting technologies (radio and television). These tools help us in several information related activities (such as access, retrieve, store, organize, modify, produce, present and exchange information by electronic and other automated means). The ICT is highly dynamic in nature. Day by day new and innovative technologies are coming up which can be used in the field of educational management particularly in imparting quality education. Some of the emerging trends in ICT which are required for educational institutions like NIOS, for capacity building and for improving educational programmes are mentioned below.

The following are the thrust areas for ODL/ICT interface:

- With ICT inputs, develop Self-paced learning packages that enable learners to work individually on the basis of print material supplemented by audio and video cassettes, CDs, DVDs etc.
- Mixed-mode study (Blended Learning) that allows self-study to be supplemented with group-work, workshops, tutorials and other structured activities.
- On-line study that allows the learner to use on-line resources on computer, via internet. This may be in self-study mode and interaction with peers and teachers through chat, e-mail, web-cam, voice-mail, etc.
- Video conferencing at a convenient location for close interaction with the teacher without having to travel long distances.
- Audio conferencing which use telephone to communicate with teachers, tutors, and peers.

6.12.1 Web-based On-line Education

Thousands of courses are today available on-line from various universities and commercial training institutions. These span a wide range of topics for fundamental subjects at school level to skill-based subjects such as network administration and programming language. Many institutions offering traditional distance learning programmes are also beginning to exploit the Internet and world wide web (www) for reaching out to a wide range of learners. Online distance education is redefining the way people study. Not only can a learner study at his/her own pace, he/she can also interact with hundreds of students across the world. NIOS needs to create appropriate strategy for offering the courses through its web-based portal.

6.12.2 E-learning

E-Learning refers to the systematic use of networked Information and Communications Technology (ICT) in teaching and learning .It is linked to the development of and access to information and communications technology (ICT) infrastructure. It is the combination of technology to enhance a learning process and reach a larger and more varied population. To make optimum use of these technologies, more attention is required to be paid to the pedagogy of teaching- learning transactions. Efforts will be initiated by NIOS to convert more and more courses, Academic as well as Vocational, to the e-learning platform.

6.12.3 Open Educational Resources (OER)

The Open Educational Resource (OER) materials are the digitized version of the learning materials that are available freely and openly for learners, teachers and scholars to use and re-use for teaching learning and research activities.

The OER has become a worldwide movement not only for acquisition of knowledge in a digitized form but it has also the significant characteristics to be a repository of updated knowledge. OER are that form of digitized materials which are offered freely and openly to educators, students and others, who have interest to use and re-use them for teaching, learning and research purposes. The computer, bandwidth, tools and implementation resources form the part of both hardware and software components in developing this digitized resources which facilitates open contents to be accessed and used. The hosts of learning materials are developed through collaborative and networking ventures online. The customized learning materials are developed through groups of experts and give ample scope for appropriate free content license, which is in use. Many of the mega open universities in the world and the international organizations like UNESCO, COL and William and Flora Hewlett Foundation, have been supporting this venture by creating online communities.

Due to explosion of knowledge and advancement of Information and Communication Technology (ICT), there has been a tremendous requirement for one to keep updating herself/himself. When the old ideas are getting obsolete and redundant every minute, unless one keeps getting updated, one is sure to get outdated. The OER is such an effort which has arisen due to the following:

- i. *Access and Distribution of Learning Resources:* OER helps in bringing collegiality and on-line co-operation among educators who share not only development of learning resources but also extend help to increase the quality of learning resources that are available beyond the four walls of the classroom. The learning materials are available at the public domain for use, which otherwise would have remained inaccessible.
- ii. *Capacity building:* The OER offers not only an opportunity to building

capacity of the individual but also of institutions through effective networking. For example, the teachers have to search for potentially useful resources based on the most updated knowledge which further enable them to adapt and reuse and thereby significantly help them enhance their own capacity. They can further contribute for updating the resource materials by providing necessary feedback out of their own experience.

- iii. *Collaborative Efforts:* The principle of OER basically enhances collaborative efforts in creating learning resources, more specifically in the context of developing countries. As the whole effort of collaboration is online, the materials can be indefinitely customized, and availability of appropriate free content license is used. This enables the developing nations to develop further and contribute significantly to the knowledge community as active partners. These collaborative efforts facilitate in material development process and help in empowering educators to demonstrate their potential.
- iv. *Best Practices:* The OERs are basically stored in databases or repositories. Since level of documenting the resources is undertaken scientifically, hence there is an ample scope to store the best practices in the source form, which usually goes unseen. This helps educators and the organizations to demonstrate good practices in their local situations with suitable adaptation, if necessary.
- v. *Research:* The OER has strong component of research. Any resource material that is developed under the free content principles is required to have strong research base. Since its primary goal is to create and host free content, multi-media learning materials, resources and curricula for all age groups irrespective of languages, a scientific method of approaching the material development process becomes a component of basic research. Similarly, the effective use of these materials and feedback help in further improvement of quality of resource materials.

The NIOS, being a mega school in open and distance learning, has envisaged active participation and is evolving strategies to further the OER movement. A major plus point of OER is that its resources are available free of cost.

6.12.4 Teleconferencing

It is an interactive electronic communication medium among people located at two or more different places. Teleconferencing is used to assist teacher-learner and learner-learner discussions, as well as to access experts and other resource persons in both formal and non-formal mode. In open and distance learning institutions, teleconferencing is a useful tool for providing instructions and support to learner. NIOS will explore the possibilities to use teleconferencing as a means to provide training and Personal Contact Programmes (PCP) to students via the regional centers. It will take appropriate

steps to run an educational channel through DTH (Direct to Home) for reaching out to its students not only at their study centres but also at their homes.

6.12.5 Videoconferencing

This technology allows exchange of not just voice and graphics but also moving images. Videoconferencing technology does not use telephone lines but it uses either a satellite link or television network (broadcast/cable). *Web-based conferencing*, as the name implies, involves the transmission of text, and graphic, audio and visual media via Internet. It requires the use of a computer with a browser and communication can be both synchronous and asynchronous. In this context, the possibility of using the EDUSAT network in the country shall be explored.

6.12.6 Mobile Computing

Mobile computing is a technology that helps the user to connect the computer to network anytime and anywhere. This technology actually caters to the needs of users who ask for mobility and portability in using their computers. As notebook computers (laptops) became more and more affordable and useful, the number of laptop users has increased rapidly. The multiple connectivity through mobile technology will help the student to have updated information from NIOS related to their course work.

6.12.7 Community Radio

Community Radio has become an effective and economical means for reaching out to persons in far flung areas as well as to those who have a common area of interest. In this case learners of NIOS can easily be connected to each other and to NIOS RC or HQ through the community radio network. The modalities of this can be worked out and the possibility of setting up a community radio station at NIOS learning network can be taken up. Commonwealth Educational Media Centre for Asia (CEMCA) has already offered to collaborate with NIOS in this project.

6.13 Education of Special Disadvantaged Groups

6.13. 1 Education of Minorities

NIOS has been mandated by the Government of India to provide educational access to all those who are outside the formal school system i.e.; to “**reach the unreached**”. Within the “**unreached**”, NIOS has its prioritized target groups comprising of marginalized groups, namely, rural youths, girls and women, SCs/STs, and differently abled learners street children etc.

Although the cumulative enrolment of NIOS has been increasing in absolute terms, the proportional representation of these prioritized target groups has remained more or less static over last one and a half decades. It has been observed that within the educationally unreached categories, women in general,

and Muslim girls in particular, are difficult to reach in terms of 'access'. The Sachar Committee Report states that the problem of education of Muslim girls/women is acute and the "hurdle" of School Education for them needs to be crossed. In order to reach out to Minorities, a "Minority Cell" was set up in NIOS during the year 2006 under the overall supervision of Secretary, NIOS as per directions of MHRD. The objective of the Minority Cell is to expand the outreach and impact of NIOS programmes and policies amongst the minority communities especially amongst girls by organising effective advocacy programmes for establishing close linkages with existing Minority Educational Institutions.

6.13.2 The HUNAR Project: Means for Empowerment

NIOS conceived and launched the Project "HUNAR" in collaboration with the Bihar Education Project Council (BEPC). The project aims at providing skill training/upgradation to Muslim girls all over the state of Bihar. The delivery mechanism is through community based network of Nodal Agencies. The first phase of this project has been completed. The second phase of the project has just been initiated with larger target which includes not only Muslim girls but also the girls from SC, ST and other most backward castes in the state, thereby increasing its network base to other disadvantaged groups of the society. Such focussed strategies need to be replicated in other states as well.

6.13.3 SPQEM

The Scheme for Providing Quality Education in Madararas (SPQEM) aims at encouraging institutions like Maktabas and Madararas by giving financial assistance and providing them with opportunity to acquire education comparable to the National Education System specially at the Secondary and Senior Secondary levels. In view of the suitability of the institutions of Open Learning, such as NIOS, this scheme provides for financial assistance upto 100% in respect of registration fee, examination fee and cost of study materials for each student opting to study through NIOS at the Secondary and Senior Secondary levels. This scheme was launched on 26 February 2009. The programme needs to be strengthened with the support from the State agencies and religious groups of the Muslim minority.

6.14 Implementation Strategies

ODL institutions must establish a standing mechanism to obtain feedback at regular intervals from the users and teachers about the suitability of the study material. The monitoring and research units in the ODL institutions should be responsible to develop the criteria and instruments to obtain and analyse the feedback. As a result of the available feedback, the material should be modified and updated. Thus, in order to ensure relevance and usefulness of the material at any point of time, the material development should be undertaken in a cyclic manner, that is, development and implementation of one generation of

material should be followed by evaluation and review which in turn should lead to the development of next generation of material.

It is not possible for ODL institutions to employ full time faculty to handle a large number of operations required for the development of curriculum, syllabi, course material and for undertaking research development and training activities. They have to solicit the involvement of experts associated with the formal system to carry out the various tasks. Because of their long association with the formal system, they are conditioned for doing things in a particular way, but for doing things in a different manner for a separate system, they need re-orientation to meet the demands of the other system. The experts willing to contribute in various activities of ODL institutions should be empanelled after they are oriented to the philosophy and methodology of ODL.

At present, the study centers are established in recognized secondary or senior secondary schools. The Principal of the school functions as the Centre Coordinator who nominates one of the teachers as assistant coordinator. The coordinator and the assistant coordinator receive token monthly honorarium from the ODL institution. The contact classes are taken by the teachers of the school on holidays for which they are paid honorarium as per the norms of the concerned open school. The available feedback suggest that in many cases schools perceive the responsibility of running the study center as an unnecessary burden as it adversely affect the normal functioning of the school. Sometimes, many teachers are reluctant to attend the school on holidays, specially when the admissible rate of honorarium is grossly inadequate.

A majority of teachers, because of their association with the formal system, fail to appreciate the difference between the methodology of the two systems. Thus, they teach the ODL learners in the same way they teach the learners of the formal system. They must remember that the learners have been provided the self learning material and their major responsibility during the Contact Programme is to address their difficulties by adopting a variety of strategies. The clarification and challenges of the ODLS, along with a necessary orientation (mandated) will make the teachers of the formal system become also good facilitators of learning in the Open Learning and by way of bonus, will also find that this system has direct relevance for them in their formal system as well.

The existing policy of establishing study centers in the recognized secondary schools needs to be reviewed. Private players may be given accreditation to run study centers if they have adequate space, infrastructure, manpower and other resources as per the norms and standards prescribed by the ODL institutions. The norms may include (i) 3-4 classrooms, (ii) a well equipped Computer Lab along with adequate facilities for online and offline learning by students, (iii) a well-equipped library and (iv) necessary equipments and space for video conferencing and regular use of audio video material. The norms may be developed with the help of distance education experts and officially notified by the concerned ODL institution. NIOS must also insure that profit is

not the prime motive of these collaborators, since it has had some bad experience of such in the past.

The establishment of study centers outside the formal school system shall provide more space for flexibility, specially in terms of timings and duration of contact classes. For example, classes can be held every day for different batches or holding the classes on holidays for all the enrolled students. Availability of full time teachers, specially trained in distance education, shall help to overcome the adhocism inherent in the existing arrangement and thereby regularize the functioning of study centers leading to improvement in the quality of programme delivery.

At present the ODL system is run by the teachers of formal schools. They do not have any special training in the methodology of curriculum transaction in the ODL system. NIOS and other Open Schools should design a short term training programme of 1-3 months duration for the teachers of formal system, who may be desirous of making a career in the ODL system. The course design of such a course may be based on the job profile of an ODL teacher, which may include: (i) guiding students for making optimum use of the study material, (ii) clarifying difficult concepts (iii) using audio video programmes and designing follow-up activities (iv) participating in video conferencing and supervising the learners when engaged in the completion of assigned activities, (vi) checking written assignments and providing timely feedback to the learners. The training of ODL teachers should be designed and conducted around the tasks they are expected to perform.

ODL institutions should set up a standing mechanism for the monitoring and evaluating of each stage of the programme delivery. Feedback regarding the suitability of the study material, both print and non-print, should be regularly obtained from the learners and ODL teachers and necessary modification should be carried out in the material in the light of available feedback. ODL institutions will have to evolve criteria for the appraisal of material which may involve considerations like relevance, comprehensibility, adequacy and correctness of content, quality of assignments, evaluation questions etc. ODL institutions should institutionalize appraisal of the functioning of study centers and take corrective measures, if necessary. Needless to say that accreditation of a study center should depend on the continued satisfactory functioning of a center and fulfillment of the prescribed norms.

The NIOS should take the initiative to build a cadre of school stage ODL professionals. At present, the full time staff on the strength of NIOS and State Open Schools have the background of formal schooling and possess some degree in education like B.Ed and M.Ed. They might have acquired the expertise in ODL while on the job but they do not have any formal qualification or specialized training of ODL. It is high time for NIOS to design and conduct a 3-6 months course for the present staff.

Innovations and Research In order to succeed and make the desired impact on the larger system, a subsystem should not only be receptive to fresh ideas and innovations but should also actively encourage innovations by the practitioners of the system. NIOS should evolve a suitable mechanism for the identification of innovations across the globe and then for dissemination in the country. The research should also aim at development of new learning methodologies useful for ODL learners. NIOS should also conduct and promote research relating to different facets of distance education, such as development of course materials, training of ODL teachers and professionals and monitoring and evaluation. The findings of research should lead to reformulation of policies, modifications in conceptualization, development of material and training of ODL teachers and professionals. NIOS should also undertake clearing house functions for the dissemination of innovations and researches in the country.

In order to undertake the above mentioned tasks, NIOS may have to set up a unit dedicated to the cause of identification, promotion and dissemination of innovations on the one hand and conceptualization, execution and utilization of research on the other.

Being the National ODL institution in the school sector, NIOS must shoulder the responsibility of establishing professional linkages with State Open Schools in the country and with similar institutions outside the country. The purpose of networking has to be sharing of experiences, learning from the experiences of others and to avoid overlapping and duplication, wherever necessary. These institutions should be linked to each other through Satellite to facilitate organization of video conferences frequently. NIOS will do well to set up a national reference library of ODL material, both print and non-print for the use and reference of not only of State Open Schools but also for the use of curriculum developers and course writers.

Open schools in the country should come together to form a voluntary association of school level ODL institutions of the nation as well as in other South Asian countries. Needless to say that the association or consortium shall provide a forum for exchange of expression and mutual learning.

At present NIOS is functioning at the national level as an agency that examination that provides continuing education and certification. It also acts as a Research and Development institute in Open Schooling. During the past few decades, tremendous expansion has taken place in Open Schooling facilities. To meet the ever increasing demand for Open Schooling, State open schools have been set up in fourteen states. The increasing enrolment in Open Schooling indicates that the system is poised for further expansion in future. The States, where open schools have not been set up so far should initiate necessary measures to set up their own open schools. In small states, where separate open schools are not viable, the existing School Education Board may set up a separate and independent department to deal with open schooling.

6.15 Summing Up

In sum, the vision of the ODL system can be effectively implemented when NIOS in collaborative partnership with the State Open Schools form a national consortium for Open Learning. Because of the increased accent on the right to choose and the abundance of learning support system, that are easily available, ODLS is becoming the preferred choice worldwide. That movement will also begin to be demonstrated in India as well. This is the challenge of providing the necessary leadership by NIOS and State Open Schools to work cooperatively, share resources and strategies and so produce in our country the miracle of synergy in the educational sector.

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